# **Pembroke City Council**

Agenda

April 14, 2025 7:00 P.M.

- A. Call to Order
- B. Invocation -
- C. Pledge of Allegiance
- D. Adoption of Minutes March 10, 2025
- E. Public Comments
- F. Approval of Meeting Agenda
- G. Consent Agenda
  - 1. Approval of a request from Jackie Alexander with BCMHS to hold bucket brigades in May, June and July. There are ten students who have qualified to attend the H2GP World Finals Competition in Germany. Dates Requested are April 26, May 17 or 24, June 21 or 28, and July 19 or 26.
  - 2. Approval of a request from DDA to close a portion of the city parking lot downtown for the Whistle Stop Market from 4pm to 9pm on Thursday May 22, June 5, July 10, July 24, August 7, August 21, and September 4, 2025.

# H. Public Hearings

- 1. Applicant, Alex Long, is requesting approval of an amendment to the Warnell PUD document, and the concept plan. The applicant is proposing two changes to the PUD document, amending Section D.3.b.3, "Townhomes" to adjust the design standards for townhome residential units within the PUD, and adding Section D.3.b.7, "Hybrid Residential Use", this section introduces a residential unit not previously included as an approved housing type, the "single-family detached townhome". The concept plan is not considered a change to the plan, but a more detailed layout than what was provided in the PUD plan.
- I. Ordinance Readings

First Readings - none.

# **Second Readings**

Motion to dispense with the reading of the Ordinance to follow.

- Second Reading and Approval of an Ordinance to amend the City's zoning ordinance, including amendments to Article V, Sections 5-2, 5-3, and 5-4, to allow Day Care Centers, Home Occupations, and Public Parks/Playgrounds as residential uses; and Article III, Sections 3-4-1 (V)(b) and 3-31 to correct contradicting language related to "Principal Buildings".
- 2. Second Reading and Approval of an Ordinance to amend the City's Subdivision Regulations to include amendments to Article IV, Section 6.1, "Required Improvements", and Article VII, Sections 7.1 and 7.2, "Design Standards".

# J. Action Agenda

- 1. Approval of amendments to the Warnell PUD document and proposed concept plan.
- K. Department Reports
- L. Committee Reports
- M. Executive Session for the purpose of discussing personnel, land acquisition, and/or litigation as allowed by O.C.G.A., Title 50, Chapter 14.
- N. Adjournment

# PEMBROKE CITY COUNCIL MINUTES MARCH 10, 2025

The regular meeting of the Pembroke City Council was held on Monday, March 10, 2025, at City Hall with the following members present: Mayor Tiffany Zeigler, Mayor Pro-Tem Johnnie Miller, Councilmembers Diane Moore, Sharon Lewis, Ernest Hamilton, and Ed Bacon. Also, present were City Administrator Chris Benson, City Attorney Dana Braun, City Clerk Arlene Hobbs, and City Engineers Marcus Sack, Logan Irvine, and Randy Dykes.

CALL TO ORDER, INVOCATION AND PLEDGE... Mayor Zeigler called the meeting to order at 7:00 pm. Minister Diana Bing of Little Salem First Christ Holiness Church offered the invocation. Mayor Pro-Tem Miller led the pledge of allegiance to the flag.

MINUTES... A motion was made by Johnnie Miller and seconded by Ernest Hamilton to approve the minutes of the February 10, 2025; regular council meeting as presented. The motion carried unanimously.

#### **PUBLIC COMMENTS...**None

AGENDA AMENDMENT TO ADD H6 AND H7 TO THE CONSENT AGENDA... A motion to amend the consent agenda by adding items H6 and H7 was made by Johnnie Miller and seconded by Diane Moore. The motion carried unanimously.

**APPROVAL OF MEETING AGENDA...**A motion to approve the meeting agenda as presented was made by Diane Moore, seconded Johnnie Miller. The motion carried unanimously.

**CONSENT AGENDA...**A motion to approve the consent agenda was made by Diane Moore, seconded by Ernest Hamilton. The motion carried unanimously.

- 1. Approval of Pembroke 2024 LMIG Bid Package to McLendon Enterprises, Inc. in the amount of \$111,531.00. This project includes mill and overlay for four different locations throughout the city to include Burkhalter Street from Strickland Street to Mikell Street, two areas on West Bacon Street and a single location at 310 Camellia Drive.
- 2. Approval of Pembroke Sewer and Drainage CDBG Bid Package to McLendon Enterprises, Inc. in the amount of \$1,328,622.10.
- 3. Approval of Police Auxiliary request to hold Bucket Brigade on Saturday, March 15, 2025.
- 4. Approval of the Bryan County Middle High School request to hold a Bucket Brigade on Saturday, March 22, 2025, from 9am to 12pm.
- 5. Resolution in Support of Local Legislation to Clarify, Amend and Revise the Charter for the City of Pembroke.
- 6. Approval of Alcohol License Application for Nouria Energy Retail, Inc., the new owner of Enmarket at 203 E. Bacon Street.
- 7. Resolution of the City of Pembroke, Georgia imposing and/or extending a moratorium on the filing of zoning applications and as a consequence a moratorium on the filing of annexation petitions.

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#### **PUBLIC HEARINGS**

- 1. Applicant, Olivia McCumber, is requesting a Home Occupation for an online art business at 1001 Lumber Drive. Derek Cathcart presented the applicant's request which is within guidelines for a home occupation permit. Staff and planning commission recommend approval.
- 2. The City of Pembroke is proposing changes to the city's zoning ordinance, including amendments to Article V, Sections 5-2, 5-3, and 5-4, to allow Day Care Centers and Public Parks/Playgrounds as residential uses; and Article III, Sections 3-4-1 (V)(b) and 3-31 to correct language related to "Principal Buildings". Dana Braun explained the proposed ordinance changes and why it is necessary. Councilmember Bacon expressed his opinion that we need to also add standards to the ordinance.
- 3. The City of Pembroke is proposing changes to the city's subdivision regulations. Those include amendments to Article IV, Section 6.1, "Required Improvements", and Article VII, Sections 7.1 and 7.2, "Design Standards". Randy Dykes of M.E. Sack Engineering presented the ordinance changes where the verbiage in Section 6 needed to be updated, and the added content in Section 7 listing the design standards.

#### ORDINANCE READINGS

# **First Readings**

Motion to dispense with the reading of the Ordinance to follow was made by Diane Moore and seconded by Johnnie Miller. The motion carried unanimously.

1. First Reading of an Ordinance to amend the city's zoning ordinance, including amendments to Article V, Sections 5-2, 5-3, and 5-4, to allow Day Care Centers and Public Parks/Playgrounds as residential uses; and Article III, Sections 3-4-1 (V)(b) and 3-31 to correct language related to "Principal Buildings".

Motion to dispense with the reading of the Ordinance to follow was made by Johnnie Miller and seconded by Ernest Hamilton. The motion carried unanimously.

2. First Reading of an Ordinance to amend the city's subdivision regulations to include amendments to Article IV, Section 6.1, "Required Improvements", and Article VII, Sections 7.1 and 7.2, "Design Standards".

# **Second Readings**

1. Second Reading and Approval of an Ordinance to amend Article I, Section 4, of Chapter 28 of the Code of Ordinances (Noise) for the City of Pembroke, Georgia. A motion to approve was made by Johnnie Miller, seconded by Diane Moore. The motion carried unanimously.

#### **ACTION AGENDA**

- Approval of a Home Occupation permit for an on-line art business at 1001 Lumber Drive. A motion to approve was made by Diane Moore and seconded by Ernest Hamilton. The motion carried unanimously.
- 2. Approval of a final plat for a 4-lot minor subdivision along Waters Circle, Phase I of Sawgrass Subdivision. A motion to approve was made by Ed Bacon, seconded by Sharon Lewis. The motion carried unanimously.
- 3. Approval of the development plans for King's Hollow (King Parcel PUD). A motion to approve was made by Ed Bacon, seconded by Diane Moore. The motion carried unanimously.

# **DEPARTMENT REPORTS...**

**Police** – Chief Collins reported that the department is still soliciting for two positions. Proposals for new vehicles are being reviewed.

Fire – Fire Chief Peter Waters reported that there were 87 calls in February. He also reported that the department was presented with a plaque and recognized by National Church Residences for their work at Ash Branch Manor during the recent emergency weather situations.

Street - nothing to report.

City Administrator — Chris also attended the appreciation event hosted by National Church Residences and remarked on how appreciative the residents and staff at Ash Branch Manor are with our Public Safety employees. He also spoke about the ESPLOST renewal currently on the ballot. The city was approached by the school board for support. He explained that the city cannot legally take a position, but that Mayor and Council as individual citizens could offer their support.

**DDA** – Fernanda reported that the next Coffee & Conversation and Let's Discuss meetings will be held on Monday, March 24, 2025.

City Attorney – nothing to report.

City Clerk - nothing to report.

**COMMITTEE REPORTS** – Diane Moore, as a member of the Public Safety Committee, made a motion to name Brenda Tyson, Assistant Police Chief, as Interim Police Chief due to the upcoming retirement of Chief Collins. Ed Bacon seconded the motion, and the motion passed unanimously. Following the motion, the Oath of Office ceremony was administered to Brenda Tyson.

**EXECUTIVE SESSION...** A motion to enter an executive session for the purposes of possible real estate acquisition was made at 7:27pm by Johnnie Miller, seconded by Sharon Lewis. The motion passed unanimously. A motion to close the executive session at 7:45pm was made by Johnnie Miller, seconded by Ernest Hamilton. The motion passed unanimously.

**ACQUISITION OF REAL ESTATE...**A motion to accept the Offer to Sell from Byron Lewis for 53 Church Street in the amount of \$100,000 was made by Diane Moore, seconded by Ed Bacon. The motion passed unanimously.

**ADJOURNMENT...**There being nothing further to discuss, at 7:55pm a motion to adjourn the meeting was made by Diane Moore, seconded by Ernest Hamilton. The motion passed unanimously.

| Arlene Hobbs, City Clerk | Tiffany M. Zeigler, Mayor |  |  |
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| ATTEST:                  |                           |  |  |

#### Arlene Hobbs

From:

Jackie Alexander < jalexander@bryan.k12.ga.us>

Sent:

Wednesday, April 9, 2025 2:12 PM

To:

Arlene Hobbs

Subject:

Re: <External Source>RE: <External Source>RE: Bucket Brigade

Yes, ma'am, I do. We looked at two options for each month hoping for availability, but we really only want to do one each month. Thank you so much for your help and I look forward to working with you.

April 26 May 17 or 24 June 21 or 28 July 19 or 26

Thanks again!





#### Arlene Hobbs

From:

Jackie Alexander < jalexander@bryan.k12.ga.us>

Sent:

Friday, March 21, 2025 4:47 PM

To:

Arlene Hobbs

Subject:

Bucket Brigade

Follow Up Flag: Flag Status:

Follow up Flagged

Good afternoon,

I am a teacher at Bryan County Middle High School and I got your contact information from Laura Blair so that we could discuss a fund-raising opportunity for our school.

We have two groups of students that have qualified to go to Germany in August for the H2GP World Finals Competition. As you can imagine, we need to raise a lot of money to take 10 students to Europe and we would like to host a bucket brigade in Pembroke each month, May - July.

I would like to discuss this with you further at your earliest convenience. Thank you so much for your help.

Sincerely,

Jackie Alexander

# **Arlene Hobbs**

From: Fernanda Camacho Hauser

**Sent:** Monday, March 31, 2025 11:27 AM

To: Arlene Hobbs

Subject:City Council Agenda AprilAttachments:Location Change.png

# Good Morning,

I'd like to request the closure for event use of a portion of the city parking lot downtown for The Whistle Stop Market from 4 pm to 9 pm on Thursday May 22, June 5, June 19, July 10, July 24, August 7, August 21, and September 4.

Thank you for your time, Fernanda Camacho Hauser Director of Downtown & Economic Development Pembroke, GA

Office: (912)-653-4407 Cell: (912)-570-5698

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# Original Location





# Planning and Zoning Inputs for April 14 City Council meeting

# **Public Hearings**

1. Applicant, Alex Long, is requesting approval of an amendment to the Warnell PUD document, and the concept plan.

# **Ordinance (Second Reading)**

# Motion to dispense with the reading of the Ordinances to follow.

- 1. Second reading and approval of amendments to the City's zoning ordinance, including amendments to Article V, Sections 5-2, 5-3, & 5-4, to allow "Day Care Centers" and "Playgrounds or Public Parks" as residential uses; and Article III, Sections 3-4-1 (V)(b) & 3-31 to correct contradicting language related to "Principal Buildings".
- 2. Second reading and approval of amendments to the City's subdivision regulations, including amendments to Article IV, Section 6.1, "Required Improvements", and Article VII, Sections 7.1 & 7.2, "Design Standards".

# **Action Agenda**

1. Approval of amendments to the Warnell PUD document and proposed concept plan.

# Pembroke Planning Commission Minutes March 20, 2025

The regular meeting of the Pembroke Planning Commission was held on Thursday, March 20, 2025, at City Hall with the following members present: Chair Charlotte Bacon, commission members Anne Barton, Van Redcross, Dave Williams, and Shalah Beckworth. Also, present was Community Development Director Derek Cathcart.

**Call to Order...** Chair Bacon called the meeting to order at 7:00pm and read the information regarding public comment and meeting decorum.

**Minutes...** A motion was made by Anne Barton and seconded by Shalah Beckworth to approve the minutes of February 27, 2025; regular commission meeting as presented. The motion carried unanimously.

# **Public Hearings**

1. Applicant, Alex Long, is requesting approval of an amendment to the Warnell PUD document, and the concept plan.

Alex Long explains that the hybrid lots are being taken from the townhome allotment. The previous townhome lot details were overlooked, the product is smaller than the approved standards permit.

Chair Bacon: Why do the townhomes need to be smaller than the approved.

AL: The product they typically provide are 20' wide townhomes.

Bacon asks about maintenance of townhome area.

AL: Master HOA with sub HOAs

Dave Williams: Will the number of townhomes increase?

AL: No, townhome number will decrease. Explains that the detached townhome name is a term used in the industry to mean similar housing types like cottage homes. Townhomes will be limited to 8 buildings.

Van Redcross: Will there be townhomes in different pods/phases?

AL: Yes

Anne Barton: What will the outside space be like?

AL: More outside space because the detached townhomes will have more yard space than the attached.

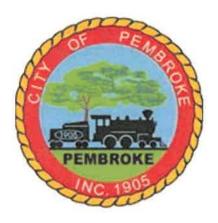
#### **Action Agenda**

1. Recommendation to city council regarding a request to approve an amendment to the Warnell PUD document, and the concept plan.

A motion to recommend approval to City Council was made by Van Redcross, seconded by Dave Williams. Shalah Beckworth and Anne Barton voted in favor, with Chair Bacon voting to recommend approval of the concept plan and the detached townhome amendment. Chair Bacon recommended to deny the attached townhome amendment. The motion passed at a 4-1 vote.

**Adjournment...**There being nothing further to discuss, at 7:15pm a motion to adjourn was made by Dave Williams, seconded by Van Redcross. The motion passed unanimously.

| ATTEST:                        |                                    |
|--------------------------------|------------------------------------|
| Derek Cathcart                 | Charlotte Bacon                    |
| Community Development Director | Planning & Zoning Commission Chair |



This report is prepared by the City of Pembroke Department of Development staff to provide information to the Pembroke Planning Commission for assistance in making an informed decision on this matter.

**Applicant:** Alex Long

#### Request: Amend an Approved Planned Unit Development (PUD) Plan

I. MEETINGS:

Planning Commission: Public Hearing

March 20, 2025

City Council:

Public Hearing & Final Vote

April 14, 2025

#### II. IDENTIFICATION AND LOCATIONAL INFORMATION:

**Existing Zoning: PUD** 

Owner/Agent: Alex Long (Owner), Clark O'Barr (Agent/Engineer)

Location of Property: Highway 67

#### III. EXECUTIVE SUMMARY:

The city has received a request to amend the approved Planned Unit Development plan for the Warnell PUD. The applicant is also seeking approval of an updated concept plan. City Council approved the Warnell PUD master plan on August 12, 2024. The PUD document acts as the master plan for the approved rezoning and provides standards and design guidelines for which to regulate the approved PUD.

The applicant is proposing two changes to the PUD document:

- 1. Amending Section D.3.b.3, "Townhomes", to adjust the design standards for townhome residential units within the PUD.
- 2. Adding Section D.3.b.7, "Hybrid Residential Use", this section introduces a residential unit not previously included as an approved housing type, the "single-family detached townhome".

The concept plan is not considered a change to the plan, but a more detailed layout than what was provided in the PUD plan.

#### IV. SUBJECT PROPERTY:

Parcel #s: 011-024, 011-024-01, 011-025, located along Highway 67 and Sims Rd. All three parcels make up the Warnell PUD.

#### V. APPLICABLE CODE SECTIONS:

#### Section 5-10 (9) (B). Deviation from the approved PUD:

Any adjustments which may be required to the approved PUD or associated Master Plan during the development of the PUD, must be approved by the City Council. Any adjustments will be considered based on the following criteria:

a. There is no increase in the number of units.

N/A

b. There is no increase in the number of stories or floor area.

N/A

c. There is no decrease in the amount of open space and the open space is in the same general location.

N/A

d. There is no major change in the location of traffic routes.

The concept plan proposes a realignment of Sims Rd. The concept has been reviewed by staff and determined satisfactory to proceed with drawings.

#### VI. STAFF ANAYLSIS:

Proposed amendments:

1. Amending Section D.3.b.3, "Townhomes", to adjust the design standards for townhome residential units within the PUD.

The amended section creates an individualized lot standard for townhomes specific to the Warnell PUD, where the existing townhome section in the Warnell PUD plan references Pembroke R-3 standards for the townhome standards. The main takeaways are the reduced minimum lot size to 1,800sf from roughly 4,356sf; reduced minimum lot width from 25 to 20 feet; reduced minimum rear yard from 14 to 5 feet; increased front yard setback from 10 to 20 feet; increased maximum lot coverage % from 75 to 85.

2. Adding Section D.3.b.7, "Hybrid Residential Use", this section introduces a residential unit not previously included as an approved housing type, the "single-family detached townhome".

This additional section provides lot standards for single-family detached townhomes. The residential unit is like a cottage house with a minimum lot width of 30′, 2,000sf min lot area, 5′ rear and side yard setbacks, and 20′ front yard setbacks.

The proposed amendments allow for additional variety in housing types within the PUD district and allow for increased density by reducing the minimum lot size for attached townhomes. The density bonus architectural guidelines are applicable to the Warnell PUD, so increasing density by reducing the attached townhome minimum standards would be permitted in a PUD. The overall density is expected to decrease slightly as a percentage of allocated attached townhomes have been reallocated to the proposed detached townhomes.

The conceptual plan has been reviewed by city staff and meets the conceptual standards to proceed with development plans. The Warnell PUD development plans shall be approved by City Council prior to phase 1 improvements, the approval today is only for the PUD document amendments and the concept map/plan.

#### VII. STAFF RECOMMENDATION:

As a result, Staff recommends to approve the PUD amendment, and concept plan.

#### VIII. PLANNING COMMISSION RECOMMENDATION:

In accordance with Article X, Section 10-3 (a.), of the Pembroke Zoning Ordinance, the Planning Commission recommends that City Council Approve the request by a 4-1 vote. The vote to not approve was voting against amendment #1 related to townhome standards.



SUBMITTED TO:

# City of Pembroke, Georgia March 2025

# **WARNELL TRACT**

PLANNED UNIT DEVELOPMENT
Amendment #1

PREPARED FOR DEVELOPER:
Warnell-GSL Cattle Company, LLC

#### **PUD AMENDMENT #1**

#### A. INTENT OF THE PUD AMENDMENT

The purpose of this amendment is to provide a more detailed conceptual master layout of the PUD as well as to provide a text amendment to expand the residential building types offered in order to provide greater flexibility in the design and implementation of the development and to provide a more open design in the residential sections of the PUD.

#### **B. AMENDMENT**

The following regulations shall replace and supersede Section D.3.b.3 within the Warnell PUD:

#### Section D.3.b.3 - Townhome Residential Use

- a) Units shall comply with the following standards:
  - a. Minimum lot width shall be 20 feet.
  - b. Minimum lot area shall be 1,800 square feet.
  - c. Minimum front setback shall be 20 feet from the back of curb or back of sidewalk where sidewalks are proposed.
  - d. Maximum number of units per building shall be 8 units.
  - e. Minimum rear yard setback shall be 5 feet measured to the façade.
  - f. Minimum building side separation shall be 40 feet measured to the façade.
  - g. Rear adjoining lots shall provide a minimum building separation of 20 feet measured from rear façade to rear façade.
  - Eaves may project a maximum of 2 feet into any building setbacks or separations.
  - i. Maximum building height is 35 feet.
  - j. Maximum Percent of Lot Coverage shall be 85%.
  - k. Amenities and open space sized appropriately to the size of the community.
  - Parking shall comply with City of Pembroke standards.



The following regulations shall be added to the Warnell PUD:

#### Section D.3.b.7 - Hybrid Residential Use

- a) The intent of this use is to allow for the construction of single family detached townhome units thereby allowing for greater open space opportunities within the development.
- b) The following standards shall apply:
  - a. Minimum lot width shall be 30 feet.
  - b. Minimum lot area shall be 2,000 square feet.
  - c. Minimum front setback shall be 20 feet from the back of curb or back of sidewalk where sidewalks are proposed.
  - d. Minimum side yard setbacks shall be 5 feet measured to the façade.
  - e. Minimum rear yard setback shall be 5 feet measured to the façade.
  - f. Minimum building separation shall be 10 feet measured to the façade.
  - g. Eaves may project a maximum of 2 feet into any building setbacks or separations.
  - h. Rear adjoining lots shall provide a minimum building separation of 20 feet measured from rear façade to rear façade.
  - i. Maximum building height is 35 feet.
  - j. Clusters of hybrid lots shall have a maximum of 8 units. A side separation of 40 feet shall be provided between clusters.

#### Section D.3.b.8 - Conceptual Master Layout

Refer to the updated Conceptual Master Layout prepared by Pape-Dawson Engineers dated March 4, 2025. The uses proposed on the layout may only be changed through an amendment to the PUD. The exact layout of the uses may be adjusted in the final civil design of the development so long as the adjustments are in general conformity with the Conceptual Master Layout. Such adjustments shall be reviewed and approved by the planning director. The purposes of allowing such adjustments are:

- 1) To allow flexibility to work with site conditions and challenges.
- 2) To allow for compliance with city ordinances.
- 3) To allow for utility and drainage needs.
- 4) The commercial and multifamily layouts shown are purely conceptual and the final layout will be determined upon actual development of the parcel(s).



#### D. PROPOSED PLAN

# 1. The City's 2023 Comprehensive Plan

The property is located in a Suburban Development area and a Community Gateway area shown on the City's 2018- 2028 Community Character Areas Map, which the City will later use to create a Future Land Use Plan.

The Comprehensive Plan defines Suburban Development as residential areas that follow a suburban, low to mid- density pattern, with low traffic volume and includes commercial development, parks and open spaces.

The Comprehensive Plan defines the Community Gateway as the parcels located along a State Route or arterial road that are zoned for a commercial purpose and are expected to have a higher volume of traffic.

Because the PUD proposes low-density single-family residential lots, mid-density townhomes, high density multifamily apartments, and commercial areas along with a generous amount of open space, the Master Plan ties in well to the City's future intent for this area.

## 2. The City's PUD Standards

The PUD Ordinance states that *the Planning Commission and the City Council shall consider the following standards* when reviewing the PUD Application, which we have addressed in the bullets below:

## (a) Compatibility with the surrounding area;

The subject property is identified in the City's Comprehensive Plan as being made up of Community Gateway and Suburban Development Character Areas. The proposed mixed-use development will include a variety of residential areas ranging from single family homes to multi-family apartments as well as commercial development that will both support and be supported by the residents. This planned development is consistent with suburban land uses throughout the region and is compatible with the intended Community Character Areas that the City intends for this area.

#### (b) Harmony with the character of the neighborhood;

The development will be divided into distinct pods that will allow the various land uses to be arranged in such a way as to assure the development will be in harmony with the character of the neighborhood. This will be accomplished by keeping commercial uses along the major roads to create a consistent commercial corridor along SR 67, and arranging residential pods throughout the development in a way that transitions between density types, provides vegetative screening to buffer surrounding areas, and connect the community through a system of roads and trails.

(c) Need for the proposed development;

Pembroke is located approximately 8 miles from the new Hyundai plant currently under construction near Ellabell. Along with its supplier companies, the plant is expected to bring 8,000 jobs to Bryan and Bulloch County in the next few years. This economic growth is likely to initiate an increase in population, which would require an increase in the local housing supply and supporting commercial and service development. One of the objectives of the Department of Community Affairs (DCA) and the City of Pembroke is to: "Promote an adequate range of safe, affordable, inclusive, and resource efficient housing in the community." The efficient use of land in the Warnell PUD will contribute 2,000 new housing units to the local community. If the standard ordinance were applied, perhaps only 200 houses would be possible on the limited upland acreage free of easements (±300 acres). This development will help the City accommodate new residents that will be drawn to the area.

(d) The effect of the proposed PUD upon the immediate area;

The most significant effect of the proposed development will be the addition of much-needed high-quality homes for families to settle in, adding to the supply of housing in the area. The PUD will be brand new construction in compliance with the latest International Residential Code, which is higher quality than the existing stock, described in the City's Comprehensive Plan as substandard and blighted. After the initial construction traffic is complete, there will be little to no adverse impacts on the immediate area since the use is compatible with the surrounding uses.

- (e) The effect of the proposed PUD on the future development of the area; In the City's Comprehensive Plan, the City states: "The City's goal of improving the quality of its housing stock directs the City and developers to collaborate in both growing Pembroke's stock of high quality housing and providing a variety of housing options for all stages of life. This involves addressing the developmental, legal, and environmental hurdles..." The Warnell Tract development offers an opportunity to act on this goal by providing more houses, brand-new high-quality construction, and a variety of lot sizes within a reasonable driving distance of the downtown area and the Hyundai facility and the related supplier facilities. The development will be built by an experienced home builder utilizing a professional team with a track record of addressing the regulatory challenges that come with housing development in Georgia.
- (f) Whether or not an exception from the zoning ordinance requirements and limitations is warranted by virtue of the design and amenities that are incorporated in the development; Located between the City of Pembroke and Interstate 16, development on this property provides housing where housing is needed most: in a location convenient to the town and its growth center, and to the Hyundai plant and its related suppliers. By allowing the type and number of homes that are proposed, the City will enable the development of newly built homes that can be offered at a price point that is affordable to over half

the population in the County.

(g) That the land surrounding the proposed PUD can be planned in coordination with the proposed PUD;

There are several existing roads and right of ways that the development is coordinating and adapting to: Hwy 67, Sims Rd, W.E. Smith Rd, and Rogers Rd., providing needed road circulation through undeveloped land with surrounding wetlands to access new homes for City of Pembroke residents. The proposed road improvements will allow surrounding areas to be developed in an intentional manner that can match the character and style of the subject property. Additionally, the highway frontage is the logical location for commercial businesses, so by placing the walkable village and other commercial and mid-density residential along this corridor, we are using the land for its highest and best use.

(h) That the proposed change to a PUD district is in conformance with the general intent of the comprehensive master plan and the general zoning ordinance of the city; The general intent of Pembroke's zoning ordinance is to consider the character of the City, and to promote, protect and facilitate the public health, safety and welfare of its inhabitants. The proposed development will give the inhabitants of Pembroke and Bryan County a safe and stable place to call home while controlling unwanted development in wetlands, stream banks, and floodplains. The residential portion of the PUD will provide defined areas that are protected from the encroachment of uses not appropriate to the single-family residential environment. Internal stability and attractiveness are encouraged through building setbacks and building heights to provide adequate light, air, and open space for dwellings.

Additionally, as noted above, the City's Comprehensive Master Plan shows the subject property mode up with Community Gateway and Suburban Development Character Areas which are consistent with the proposed planned development.

- (i) That the existing and proposed streets are suitable and adequate to carry anticipated traffic within the proposed district and in the vicinity of the proposed district; Part of the design and permitting process for this development will include conducting a traffic study which will analyze the surrounding streets and make recommendations for improvements that will be required as part of this project.
- (j) That the existing and proposed utility services are adequate for the proposed development;

The city has provided the developer with instructions regarding the water and sewer connection points that will service the development in order to provide adequate supply.

(k) That the PUD creates a desirable and stable environment;

The benefit of a mixed use community is that the residential units will provide a population that will support the commercial development, and the commercial portion

of the development provides an incentive for residents to be part of a community with easy access to desirable commercial amenities. Additionally, for reasons noted above it is anticipated that the population of the City will be growing over the next several years. This development provided needed housing to support this growth. Similar developments in other Georgia cities and towns have been successful in not only creating a stable environment, but by also serving as a model for continued growth and responsible development for projects that have followed.

(I) That the PUD makes it possible for the creation of a creative, innovative and efficient use of the property.

By allowing the exceptions to the standard zoning of this area, the PUD allows for a creative solution to the problems of separated uses & too-low-density housing in a growing city.

# 3. The Conceptual Master Plan

The goal of the PUD is to produce a high-quality, environmentally sensitive, mixed-use residential neighborhood. The Conceptual Master Plan, **Exhibit C**, outlines the general scope of the development, including the number of units, development standards, open space, and other issues. The Plan allows a maximum of 2,000 dwelling units combined with commercial and office uses along Highway 67, neighborhood parks and trails, buffers, open space, and proposed streets and sidewalks throughout. The Conceptual Village Plan, **Exhibit D**, illustrates the mix of Open Space, landscape, and wetlands within the pods on the Master Plan. The land plan shall include adequate areas for bus stops and traffic calming signage and striping for these areas.

The proposed development shall have a minimum of 25% single family detached housing and a maximum of 60% shall be multifamily housing.

- a. The Conceptual Master Plan (see Exhibit C) proposes the following:
  - Total Site Area ±547.4 acres
  - Land Use Types:
    - o Residential
    - o Commercial/Office
    - o Open Space
  - Max. # of Dwelling Units:
    - o 2,000 Units
  - Type of Dwelling Units:
    - Single-Family
    - Townhomes
    - o Multi-family Garden
    - o Multi-family Village
  - Size of Dwelling Units:
    - Single family: (60'x110' lots) min. and (50'x105' lots) min.
  - Commercial Space
    - o ± 53.0 acres
  - Required Zoning Buffers:
    - 30' buffer @ adjacent property
  - Common Open Space
    - o 20% minimum
    - o See Open Space
  - Streets & Sidewalks
    - o 60' right-of-way
    - o 5' wide walk

#### b. Allowed Land Uses

The Warnell Tract provides three (3) types of land uses.

# 1. Single Family Residential Use (PUD-SFR)

Detached single-family residential is a permitted principal use in the residential areas of the Warnell PUD. There are two (2) different lot sizes allowed to offer Pembroke residents a variety of price points and housing options.

- a) PUD-R62: Minimum Lot width 62'
- b) PUD-R52: Minimum Lot width 52'
- c) Maximum density: 3.5 dwelling units per acre

# d) Permitted uses in PUD-SFR

- i. Single Family Detached Residential
- ii. Model Home/Sales office
- iii. Community Maintenance Area
- iv. Open Space
- v. Infrastructure (Roads, Utilities, etc.)
- vi. Accessory uses incidental to the principal use.

**TABLE 1 – PUD-SFR Development Standards** 

| CODE                   | CURRENT<br>R-1      | CURRENT<br>A-5   | PROPOSED<br>PUD-R62 | PROPOSED<br>PUD-R52 |
|------------------------|---------------------|------------------|---------------------|---------------------|
| Min. Lot Width         | 100 ft              | 200 ft           | 62'                 | 52'                 |
| Min. Lot Area          | 12,000 s.f.         | 5 acres          | 6,510 s.f.          | 5,460 s.f.          |
| Front Setback***       | 25 ft               | 75 ft            | 15 ft               | 15 ft               |
| Side Setback***        | 15' int. / 20' crnr | 50 int./50' crnr | 5 ft                | 5 ft                |
| Rear Setback***        | 20 ft               | 50 ft            | 10 ft               | 10 ft               |
| Max. Lot Coverage*     | 30%                 | 20%              | 50%                 | 50%                 |
| Max. Building height** | **                  | **               | **                  | **                  |

<sup>\*</sup>Lot Coverage is determined based on the square footage of the ground floor of the primary structure.

# e) Residential Design Standards

The neighborhoods within Warnell PUD shall be designed to create an individual identity. Pedestrian-friendly design shall be the unifying element of the neighborhood designs and shall have the following in common:

i. **Streets:** See **Exhibit G**. The design of the street system should help create the neighborhoods. Different street types (with different dimensional characteristics) can be combined within the neighborhoods of Warnell PUD.

<sup>\*\*</sup> Height shall conform to current R-1 Pembroke Zoning Ordinance.

<sup>\*\*\*</sup>Projections into yards shall conform to current R-1 Pembroke Zoning Ordinance.

The layout of neighborhoods should be easy to understand and walkable and should have interconnections necessary to promote a sense of neighborhood identity. Streets shall be connected to other streets and adjoining neighborhoods within Warnell PUD or terminate in a cul-de-sac. Streets within Warnell PUD shall be constructed based on the requirements of the City of Pembroke or as modified herein. Allowed street sections are included as **Exhibit G** below.

- ii. **Sidewalks**: The Warnell PUD shall provide sidewalks along the primary streets, linking the neighborhood's open spaces and amenity areas. Sidewalks are the number one desired and used amenity in any community. They allow neighborhood connectivity for residents. They promote a neighborhood atmosphere when families are walking or exercising through the community.
- iii. Street Trees: Besides their inherent beauty, trees provide a number of benefits to our community. Trees provide shade to help reduce home cooling cost and also cut down noise pollution by absorbing sound. Street trees add value to the homes in the community because of the look and feel a person has when driving in a community with street trees. The design will include a street tree program along all streetscapes. Trees will be installed with a max. 60' separation along all roadways. The placement of each tree along the roadway will be in a 6' landscape strip between the back of curb and the community sidewalks.
- iv. **Parking:** Each home shall have a minimum of two off-street parking spaces. The minimum spaces may be in a garage, carport, or in the driveway, provided that there is a minimum of twenty feet of clear space within the driveway and does not encroach upon the roadside sidewalks.
- v. Street Lighting: Street lighting shall be placed within the street right-of-way to promote extended use of the sidewalks and promote neighborhood safety. Generally, streetlights shall consist of cut-off fixtures at intersections and sight lines between intersections. The final placement of the street lighting will be subject to the placement requirements of the utility provider. The fixtures will be a decorative post and fixture to continue to improve the overall feel of a traditional neighborhood.
- vi. **Street Signage** All community signage will be of high-quality decorative post and street blades to create a traditional

neighborhood experience.

# vii. Entrance Monuments and Landscape

The neighborhoods will have attractive entrances with a lighted entrance monument that is unique and landscaped to distinguish it from a typical street. This will give each neighborhood a sense of character and clearly designate the neighborhood as a desirable place to live.

# viii. Neighborhood Amenity

Amenity areas will be included in each of the neighborhoods. It will be sized appropriately to the neighborhood so as to not add undue hardship on homeowner for operation and maintenance cost. The amenity area may include active and/or passive amenities for homeowners. Some examples of active amenities would be a pool, sports field, gaming area, or an age-appropriate playground. There may be passive amenities that will promote neighborhood gatherings. Passive amenity examples could include a pavilion, fire pit, grill stations, park benches or picnic tables.

- ix. **Building Setbacks:** Building setbacks are detailed in Table 1 above and in Lot Details in **Exhibit G**. Stoops, stairs, bay windows, balconies, open porches, and roofs of the principal dwelling unit may extend beyond the front setback line, provided they do not extend beyond the lot boundary.
- x. **Driveways:** Driveways shall be no closer than three (3) feet from a side property line.
- xi. Garages: Garages in Single family and towhome neighborhoods may be attached or detached from the Dwelling Unit. Garages shall be setback a minimum of twenty (20) feet from the roadside sidewalk.
- xii. **Mechanical Equipment:** Mechanical Equipment (other than equipment installed by utility companies) and waste containers above grade level may not be located in the front yard setback and shall be screened from view.

### 2. Commercial Uses

# a) Permitted Uses in Commercial Uses

- i. Uses that are in conformance with B-1 and B-2 current zoning ordinance.
- ii. Building height and parking to comply with City of Pembroke standards; however, commercial buildings exceeding 2 stories shall provide proper buffers and separation to limit the line of sight from the top floor of a new building to the existing offsite building(s).
- iii. Dumpsters shall be placed on a concrete pad and shall be enclosed with fencing or walls.

### 3. Townhome Residential

- a) Units to comply with Pembroke R-3 Townhome code
- b) Amenities and open space sized appropriately to the size of the community
- c) Building height and parking to comply with City of Pembroke standards

# 4. Multi-family Residential

- a) Garden Apartments
- b) Multi-family units to comply with City of Pembroke R-3 standards
- c) Amenities and open space sized appropriately to the size of the community
- d) Building height and parking to comply with City of Pembroke standards

### 5. Mixed Use

- a) Multi-family Residential on upper floors
- b) Commercial on ground floor to comply with B-1 and B-2 City standards
- c) Building height and parking to comply w/ City of Pembroke Standards; however, multifamily buildings exceeding 2 stories shall provide proper buffers and separation to limit the line of sight from the top floor of a new building to the existing offsite building(s).
- d) Community character is a walkable village with sidewalks, street trees, and some on-street parking
- e) Amenities and open space sized appropriately to the size of the community

# 6. Common Open Space & Wetlands

The Conceptual Master Plan seeks to maintain significant areas of open space. The open space and amenities will be owned and maintained by the developer, homeowner's association, or other legally designated entity. Property deeded to a government entity becomes the maintenance responsibility of that entity.

### a. Open Space Requirements

Total Site Area: ± 547.4 acres
• Min. Open Space: 20% min.

- o ±109.5 acres minimum this site
- Min. Open Space in Permanent Green Space: 30% min.
  - o ±32.8 ac this site
- Min. Open Space in Community Recreation: 5% min. or 1 acre min
  - ±5.5 ac this site
- Max. Open Space in Wetlands: 50% max. of remaining
  - o ±35.6 ac this site

### b. Permitted Use of Wetlands

Unless restricted via a future memorandum of agreement (MOA) to the contrary, the following are Permitted Uses in wetlands:

- Stormwater control and management
- Open Spaces and buffers
- Conservation areas
- Activities in all areas as permitted by USACOE, EPD, & GDNR-CRD
- Disposal of reclaimed water as permitted by EPD
- Boardwalks, trails, bridges, and other permitted structures
- Forest Management
- Development consistent with the proposed uses in this PUD may be allowed in areas that are determined non-jurisdictional or are permitted for impacts.

### c. Rules & Restrictions

The Conceptual Master Plan (see **Exhibit C & D**) are non-specific regarding the final layout and configuration of the residential development to allow flexibility in the future to accommodate specific soil conditions, environmental concerns, physical constraints, market conditions, and design parameters while complying with overall guidelines compatible with the City's vision. Accordingly, the exact location of the primary and secondary streets, stormwater ponds, and open spaces described herein shall be subject to change as phases of the Conceptual Master Plan area are submitted for Final Development Plan approval over the life of the development, provided that the maximum densities, commitment to open space, development standards and other conditions of the Warnell Tract PUD will be adhered to.

The provisions of the Conceptual Master Plan, Exhibits, and Appendices shall apply to the development of the Warnell Tract PUD. In the event of a conflict, the hierarchy of documents is the Conceptual Land Use Master Plan and this text, then the City of Pembroke Zoning Ordinance. Each phase of the development will be submitted for final permit approval at a later date per the City's standard building permit regulations.

# d. Neighborhood Management

The establishment of an active manager is key to the long-term preservation of a neighborhood. For the homeowner subdivisions, the Developer will put in place a Homeowner's Association who will manage Covenants, Codes, and Restrictions to regulate all aspect of the community. For the Commercial and Multi-family rental developments, a professional Property Manager will be contracted to manage the development. The Property Manager or Homeowner's Association will keep the responsibility of maintaining the neighborhood in perpetuity, which will assist in maintaining property values. All homeowners will be governed by this deed restrictive document to keep consistency in architecture controls, maintenance and repair of all common area properties, and to maintain any community infrastructure not accepted by the local municipality. This will reduce the municipality's burden to regulate some issues within the neighborhood.

# e. The Development Schedule

Development will take place according to the Master Plan (**Exhibit C**) and as described in this document over several years. Due to its size and changing m market conditions, is likely to be built in phases over this extended period. Each phase will be submitted for final permit approval with more detailed documents per the City's standard building permit regulations.

### f. Access and Vehicular Traffic

New roads will be built to increase the connectivity and accessibility to the land, consistent with the Rural Residential character area goals in the Bryan County Comprehensive Plan. Because the property has multiple tracts with frontage on multiple existing roads, the development will have multiple access points on the existing roads.

- All proposed internal roads will be constructed in accordance with the City
  of Pembroke standards and will be public roads dedicated to the City of
  Pembroke, or as modified herein to be private gated communities.
- The minimum road right-of-way shall be 60 feet.
- Highway 67 bisects the development with an existing 100' right of way, with large PUD tracts on either side of the highway. There will be multiple new road intersections for the proposed internal roads, along with driveway entries on Highway 67. GDOT standards will be followed and turning lanes will be constructed.
- Mason Rd. passes the site in multiple locations and has a public right of way with a varying width. There will be at least 2 entrances/new road intersections on Mason Rd. that provide access into the development.
- Sims Rd. is a dirt road that transects the site without a public right-of-way.
   Sims Rd will be improved and paved, a 60' right-of-way will be created for Sims Rd. and dedicated to the City. Sims Rd. currently intersects with

Highway 67 at an odd angle – this angle will be corrected to within 5 degrees of 90 degrees. Sims Road and the development entrances along Sims Road will be separated from existing driveways and will not impede existing homeowner's access.

- The access points for the Commercial parcels will be in compliance with the City's current B-1 and B-2 zoning code for commercial businesses and transportation codes.
- Roads indicated on the Conceptual Master Plan are subject to modification at the time of Final Development Plan approval based on the final lot layout, specific soil conditions, environmental concerns, physical constraints, and design parameters.

# g. Pedestrian Circulation

The Warnell Tract neighborhood shall contain:

- A minimum of a 5-foot-wide sidewalk along one side of the primary streets per the City Subdivision Regulations.
- A 10' multi-use loop trail utilizing the power easements

# h. Vegative Buffers & Setbacks

- 1. Residential uses:
  - 30 feet buffer at the perimeter property line per the Conceptual Master Plan, see **Exhibits C and D**.
  - 25 feet setbacks for multi-family or townhome residential buildings at the internal proposed roads allow for standard landscape strips between residential buildings and the public roads, see Exhibit D.
  - Used to physically and visually separate the neighborhood from surrounding properties. This reduces noise and gives the owners more privacy. These buffers may be disturbed and graded during the development process but must be planted with the appropriate vegetation to provide the desired buffering.
  - 50' building setback from Highway 67
- 2. Earthen landscape berms are an allowed use in the buffer zones.
- 3. Landscape buffers to provide screening of incompatible uses shall consist of evergreen plant materials to minimize visual impact.
- 4. The commercial parcels will adhere to the standard zoning ordinance for buffers and B-1 and B-2 zoning.
- 5. Buffer crossings and disturbances along the frontage of Highway 67 for traffic, signage, utility, and landscape improvements will be limited as is necessary for the installation of these items. Additionally, in accordance with Section 7.6.6.iv, buffers within the commercial district may be cleared and graded so long as they are replanted.
- 6. If used, berms will only be allowed as buffers internal to the development.

7. Existing catfaced trees along the frontage of Highway 67 may be preserved so long as they do not hinder the development of the property and so long as they are deemed healthy by a registered arborist. Unhealthy trees may be removed to prevent future damage to the proposed development. Additionally, in accordance with Section 7.6.6.iv, buffers within the commercial district may be cleared and graded so long as they are replanted.

### i. Utilities & Stormwater

# 1. Stormwater Management

The project's stormwater will be managed in accordance with the City of Pembroke standards. Natural drainage patterns shall be incorporated in the final site grading plan, and stormwater shall be collected with curb & gutter, inlets and underground pipes, then conveyed to any necessary stormwater ponds for discharge into the adjacent wetland systems in accordance with city & state regulations.

The PUD shall conform to the Flood Damage Prevention Code of City of Pembroke. The majority of the project site is currently well drained and located in Zone A on the FEMA flood maps. Zone X is that area of land located outside of the 100-year flood limits. Some areas of the site are currently in the 100-yr flood limits of Zone AE. Zone AE are defined as areas that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year.

### 2. Water Supply

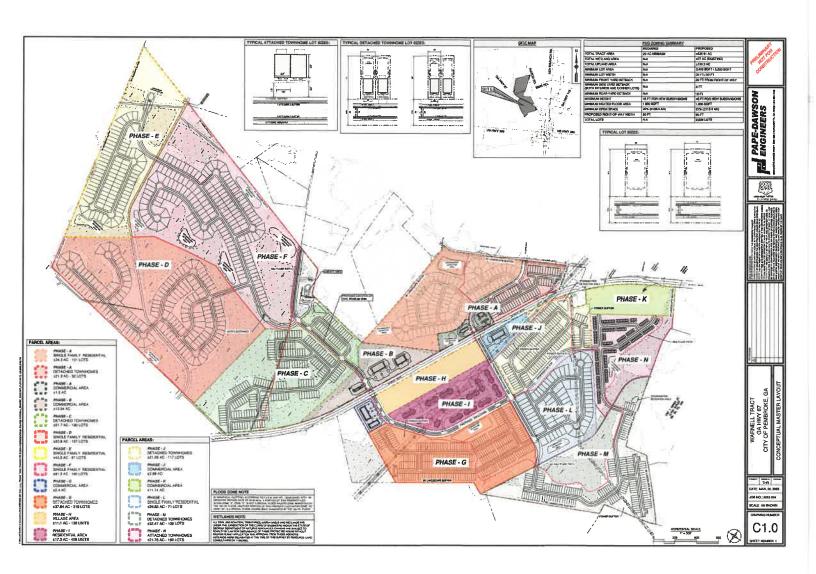
The city has provided the developer with instructions regarding the water and sewer connection points that will service the development in order to provide adequate supply.

# 3. Sewer Service

The city has provided the developer with instructions regarding the water and sewer connection points that will service the development in order to provide adequate supply.

This document, its associated exhibits and appendices are proprietary information and may not be duplicated, shared or modified without express permission of Maxwell Reddick & Associates, a Pape Dawson Company.







This report is prepared by the City of Pembroke Department of Development staff to provide information to the Pembroke Planning Commission for assistance in making an informed decision on this matter.

**Applicant:** City of Pembroke

Request: Zoning Text Amendment: Article V, Sections 5-2, 5-3, & 5-4, to allow Day Care Centers and Public Parks/Playgrounds as residential uses; and Article III, Sections 3-4-1 (V)(b) & 3-31 to correct contradicting language related to "Principal Buildings"

### I. MEETINGS:

Planning Commission: Public Hearing February 20, 2025

City Council: Public Hearing & First Reading March 10, 2025

City Council: Second Reading & Vote April 14, 2025

### II. EXECUTIVE SUMMARY:

The City of Pembroke is proposing amendments to the city's zoning ordinance to allow Public Parks/Playgrounds as a permitted use in the following zoning districts: R-1, R-2, R-3; to allow Day Care Centers as a conditional use in the following zoning districts: R-1, R-2, R-3; to correct language related to Principal Buildings.

The zoning ordinance as currently constructed does not permit public parks or childcare facilities in residential districts except for agricultural districts. Childcare and public parks/green space are common amenities and facilities that attract people to live and remain in communities. Upon review of the zoning ordinances of the 2024 top 10 ranked cities for quality of life in the US by US News and World, all but one city permits parks or playgrounds in residential districts. 8 out of the 10 permit childcare facilities in all residential districts, while the other two limit the use to only certain residential districts. The City of Pembroke should take every opportunity to include green space and increase access to childcare to attract and retain young families as housing development grows in the area. Upon review of neighboring municipalities – the majority permit parks/playgrounds, while just over half permit childcare facilities in residential districts.

US News & World Report for 2024 cities with the highest quality of life rankings: Top 10

Anne Arbor: Child Care (P), Outdoor Recreation (E)

Boulder: Child Care (Use Review), Parks (P)

Madison: Child Care (C), Parks/Playgrounds (P)

San Jose: Child Care (S), Parks/Playgrounds (P)

Portland, Maine: Child Care (C), Parks (P)

Boston: Child Care (P), Parks (P)

Green Bay: Family Day Care (P), Day Care (P in r-3 only); Parks (P)

Hartford: Child Care (C), Parks (C)

Rochester: Child Care (S), Parks (S)

Trenton, NJ: Child Care (C) - not in all residential districts, family day cares are permitted in all residential

districts; Parks (NA)

#### **Local Ordinances:**

VIII.

Savannah: Child Care (S), Parks (P)

Port Wentworth: Day Care Center (NA) Family Day Care (P) Preschool (P); Parks (P)

Hinesville: Child Care (S), Parks (P)

Richmond Hill: Child Care (C), Parks (P)

Brooklet: Child Care Special Use in R-2, R-3, not permitted in R-1; Public Recreation (S)

Rincon: Child Care (C) only in higher density Res; Parks (P)

Statesboro: Child Care (NA), Parks (P)

Springfield: Child Care (NA), Parks (P)

The amendments to Article III, Sections 3-4-1 (V)(b) & 3-31 will clean up contradictory language related to principal buildings on a lot. Currently there are not exemptions for multifamily buildings, like the permitted Garden Style Apartments, and the two sections contradict each other in verbiage.

In accordance with Article X, Section 10-3 (a.), of the Pembroke Zoning Ordinance, the Planning Commission recommends that City Council Approve the request.

| ORDINANCE NO. | ORDINANCE: | NO. |
|---------------|------------|-----|
|---------------|------------|-----|

## AN ORDINANCE AMENDING:

SECTIONS 3-4-1 V. a) ii. b) and 3-31 OF ARTICLE III OF THE CITY OF PEMBROKE ZONING ORDINANCE

### **AND**

SECTIONS 5-2, 5-3 and 5-4 OF ARTICLE V OF THE CITY OF PEMBROKE ZONING ORDINANCE

- **BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE** that Section 3-4-1 V. a) ii. b) of Article III of the City of Pembroke Code Zoning Ordinances is hereby amended so as to read as follows:
- b) Residential. Except in manufactured home parks, planned unit developments, group housing projects, or groups of multifamily buildings, only one principal structure and its customary accessory structures may hereafter be erected on any lot. Any dwelling, including site-built dwellings, manufactured homes, mobile homes or modular homes, shall be deemed to be a principal structure.
- **BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE** that Section 3-31 of Article III of the City of Pembroke Code Zoning Ordinances is hereby amended so as to read as follows:

### Section 3-31 Principal Building on a Lot.

Except in Manufactured Housing Parks, planned unit developments, groups of multifamily buildings, group housing projects, or commercial exceptions described in Article 3-4-1 (V)(a); only one (1) principal building and its customary accessory buildings may hereafter be erected on any lot of record. Any dwelling shall be deemed to be the principal building on the lot on which the same is located. An addition to an accessory building shall not be construed as a principal building.

**BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE** that Section 5-2 of Article V of the City of Pembroke Code Zoning Ordinances is hereby amended so as to read as follows:

# **Sections 5-2**

- (1) Permitted Uses
  - (a) One family detached dwelling. Manufactured Homes or Modular Homes must meet the requirements of Article III, Section 3-19 of this Zoning Ordinance. Amended 6-11-2012

- (b) Unlighted, regulation-size or par three golf courses, including normal club house and pro shop activities, and other business activity associated with country clubs.
- (c) Non-commercial horticulture or agriculture, but not including the keeping of poultry or animals, except as provided for in number five (5) below.
- (d) Playgrounds or Public Parks

BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE that Section 5-3 of Article V of the City of Pembroke Code Zoning Ordinances is hereby amended so as to read as follows:

### Article V. Section 5-3.

- (1) Permitted Uses.
  - (a) All permitted uses in single family residential districts.
  - (b) Duplexes and two-family structures.
  - (c) Customary accessory buildings incidental to the above permitted user.
  - (d) Playgrounds or Public Parks
- (2) <u>Conditional Uses</u>. The following uses shall be permitted in this Residential District on a conditional basis upon recommendation by the Planning Commission and approval by the governing authority. The governing authority may accept the recommendation of the Planning Commission or may consider and grant approval of its own recommendation.
  - (a) Manufactured housing upon approval by the local governing authority. Manufactured Housing in "R-2" Districts is subject to all the requirements of Section 3-19 of Article III of this Zoning Ordinance. Amended 6-11-2012
  - (b) Home occupations upon approval by the local governing authority.
  - (c) Public utilities substations or sub-installations, including water towers, provided that: 1) such use is enclosed by a painted board or chain-link fence or masonry wall, of at least six feet in height above finished grade; 2) there is neither an office nor a commercial operation nor storage of vehicles or equipment or materials on the premises; and 3) there is a landscaped strip not

less than five feet in width and six feet in height planted and maintained around the facility. However, these requirements may be waived for small substations within neighborhood areas at the discretion of the Planning Commission.

- (d) Churches, synagogues, temples, or other places of worship provided that: 1) such use is housed in a permanent structure, and 2) no structure on the lot is closer than twenty-five (25) feet to any abutting residential property line.
- (e) Public and private school engaged in teaching general curriculum for educational advancement, provided the structures are placed not less than fifty (50) feet from any residential property line.
- (f) Day Care Centers

AND BE IT FURTHER ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE that Section 5-4 of Article V of the City of Pembroke Code Zoning Ordinances is hereby amended so as to read as follows:

### Article V Section 5-4

# (1) Permitted Uses

- (a) Multiple family dwellings, including townhomes, apartments, condos, rooming houses, fraternities, sororities, and dormitories;
- (b) Two-family dwellings;
- (c) Nursing Home, retirement community;
- (d) Playgrounds or Public Parks
- (e) Churches, synagogues, temples, or other places of worship provided that: 1) such use is housed in a permanent structure, and 2) no structure on the lot is closer than twenty-five (25) feet to any abutting residential property line; and
- (f) Customary accessory buildings incidental to the above permitted uses.
- (2) <u>Conditional Uses.</u> The following uses shall be permitted in this Residential District on a conditional basis upon recommendation by the Planning Commission and approval by the governing authority. The governing authority may accept the recommendation of the Planning

Commission or may consider and grant approval of its own recommendation.

- (a) Day Care Center
- (b) Home occupations upon approval by the local governing authority.
- (c) Public utilities substations or sub-installations, including water towers, provided that: 1) such use is enclosed by a painted board or chain-link fence or masonry wall, of at least six feet in height above finished grade; 2) there is neither an office nor a commercial operation nor storage of vehicles or equipment or materials on the premises; and 3) there is a landscaped strip not less than five feet in width and six feet in height planted and maintained around the facility. However, these requirements may be waived for small substations within neighborhood areas at the discretion of the Planning Commission.
- (d) Public and private school engaged in teaching general curriculum for educational advancement, provided the structures are placed not less than fifty (50) feet from any residential property line.
- (3) Lot and Building Requirements.

\*Net acre shall be calculated as the total site acreage, less the area occupied by wetlands.

# Principal Buildings - Garden Apartments

| Living Units (with water & sewer)  | Max. 12 per *net acre thereof |
|------------------------------------|-------------------------------|
| Minimum Lot Width at Building Line | 150 Feet                      |
| Minimum Front Yard                 | 10 Feet                       |
| Minimum Rear Yard                  | 15 Feet                       |
| Minimum Side Yard, Interior        | 15 Feet                       |
| Minimum Side Yard, Street          | ·20 Feet                      |
| Maximum Building Height            | 60 Feet                       |
| Maximum Percent of Lot Coverage    | 40 Percent                    |
|                                    |                               |

# Accessory Buildings Minimum Setback from Lot Line:

| Rear | 10 Feet |
|------|---------|
| Side | 3 Feet  |

# Principal Building - Townhouses

| Living Units (with water & se    | wer) Maximum 10 Per *Net Acre       |  |  |  |  |
|----------------------------------|-------------------------------------|--|--|--|--|
| Minimum Lot Area                 | 1/2 acre                            |  |  |  |  |
| Minimum Lot Width at Build       | ing Line 25 Feet                    |  |  |  |  |
| Minimum Front Yard               | 10 Feet                             |  |  |  |  |
| Minimum Rear Yard                | 14 Feet                             |  |  |  |  |
| Minimum Side Yard                | None if Buildings are attached      |  |  |  |  |
|                                  | 40 Feet between groups of buildings |  |  |  |  |
| Maximum number of units ha       | ving same building line 8 Units     |  |  |  |  |
| Maximum building Height          | 35 Feet                             |  |  |  |  |
| Maximum Percent of Lot Cov       | rerage 75 Percent                   |  |  |  |  |
|                                  |                                     |  |  |  |  |
| ADOPTED THIS DAY OF APRIL, 2025. |                                     |  |  |  |  |
|                                  |                                     |  |  |  |  |
|                                  |                                     |  |  |  |  |
|                                  |                                     |  |  |  |  |
|                                  | TIFFANY ZEIGLER, MAYOR              |  |  |  |  |
| ATTEST:                          | THITMINI EDIGLEN, WHITON            |  |  |  |  |
| 111 120 11                       |                                     |  |  |  |  |
|                                  |                                     |  |  |  |  |
|                                  |                                     |  |  |  |  |
| ARLENE HOBBS, CLERK OF COUNCIL   |                                     |  |  |  |  |
| ARLENE HOBBS, CLERK OF COUNCIL   |                                     |  |  |  |  |
|                                  |                                     |  |  |  |  |
|                                  |                                     |  |  |  |  |
| FIRST READING:, 2025             |                                     |  |  |  |  |
| SECOND READING:, 2025            |                                     |  |  |  |  |

#### Article III. Section 3-4-1

- V. More than one principal structure per lot.
- a) Commercial. More than one principal structure devoted to non-residential uses may be situated on a lot, provided that:
- i. An unobstructed accessway at least 15 feet wide is maintained from a road to each structure for use by service and emergency vehicles; and
- ii. Each structure on the lot is separated from any other structure on the lot by at least four feet.
- b) Residential. Except in manufactured home parks, planned unit developments or condominiums, only on principal structure and its customary accessory structures may hereafter be erected on any lot. Any dwelling, including site-built dwellings, manufactured homes, mobile homes or modular homes, shall be deemed to be a principal structure.
- b) Residential. Except in manufactured home parks, planned unit developments, group housing projects, or groups of multifamily buildings, only one principal structure and its customary accessory structures may hereafter be erected on any lot. Any dwelling, including site-built dwellings, manufactured homes, mobile homes or modular homes, shall be deemed to be a principal structure.

### Article III

### Section 3-31 Principal Building on a Lot.

Except in Manufactured Housing Parks and the group housing projects as provided in these regulations, only one (1) principal building and its customary accessory buildings may hereafter be erected on any lot of record. Any dwelling shall be deemed to be the principal building on the lot on which the same is located. An addition to any building shall not be construed as a principal building

Except in Manufactured Housing Parks, planned unit developments, groups of multifamily buildings, group housing projects, or commercial exceptions described in Article 3-4-1 (V)(a); only one (1) principal building and its customary accessory buildings may hereafter be erected on any lot of record. Any dwelling shall be deemed to be the principal building on the lot on which the same is located. An addition to an accessory building shall not be construed as a principal building.

### Article V

### Sections 5-2

(1) Permitted Uses

- (a) One family detached dwelling. Manufactured Homes or Modular Homes must meet the requirements of Article III, Section 3-19 of this Zoning Ordinance. Amended 6-11-2012
- (b) Unlighted, regulation-size or par three golf courses, including normal club house and pro shop activities, and other business activity associated with country clubs.
- (c) Non-commercial horticulture or agriculture, but not including the keeping of poultry or animals, except as provided for in number five (5) below.

### (d) Playgrounds or Public Parks

- (2) Conditional Uses. The following uses shall be permitted in this Residential District on a conditional basis upon recommendation by the Planning Commission and approval by the governing authority. The governing authority may accept the recommendation of the Planning Commission or may consider and grant approval of its own recommendation.
  - (a) Home occupations upon approval by the local governing authority.
  - (b) Churches, synagogues, temples or other place of worship provided that: 1) such use is housed in a permanent structure, and 2) no structure on the lot is closer than twenty-five (25) feet to any abutting residential property line.
  - (c) Public and private school engaged in teaching general curriculum for educational advancement, provided the structures are placed not less than fifty (50) feet from any residential property line.
  - (d) Public utilities substation or sub-installation including water towers, provided that: 1) such use is enclosed by a painted or chain-link fence or wall at least six (6) feet in height above finished grade; 2) there is neither office nor commercial operation nor storage of vehicles or equipment on the premises; and 3) a landscaped strip, serving as a buffer, not less than five (5) feet in width is planted and suitably maintained to screen the facility and fence from view. However, the requirements for small substations

within neighborhood areas may be waived at the discretion of the Planning Commission.

- (e) Group Home
- (f) Day Care Center

### Article V. Section 5-3.

- (1) Permitted Uses.
  - (a) All permitted uses in single family residential districts.
  - (b) Duplexes and two-family structures.
  - (c) Customary accessory buildings incidental to the above permitted user.
  - (d) Playgrounds or Public Parks
- (2) <u>Conditional Uses</u>. The following uses shall be permitted in this Residential District on a conditional basis upon recommendation by the Planning Commission and approval by the governing authority. The governing authority may accept the recommendation of the Planning Commission or may consider and grant approval of its own recommendation.
  - (a) Manufactured housing upon approval by the local governing authority. Manufactured Housing in "R-2" Districts is subject to all the requirements of Section 3-19 of Article III of this Zoning Ordinance. Amended 6-11-2012
  - (b) Home occupations upon approval by the local governing authority.
  - (c) Public utilities substations or sub-installations, including water towers, provided that: 1) such use is enclosed by a painted board or chain-link fence or masonry wall, of at least six feet in height above finished grade; 2) there is neither an office nor a commercial operation nor storage of vehicles or equipment or materials on the premises; and 3) there is a landscaped strip not less than five feet in width and six feet in height planted and maintained around the facility. However, these requirements may be waived for small substations within neighborhood areas at the discretion of the Planning Commission.

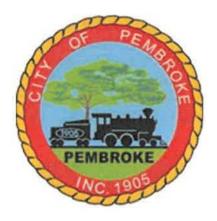
- (d) Churches, synagogues, temples, or other places of worship provided that: 1) such use is housed in a permanent structure, and 2) no structure on the lot is closer than twenty-five (25) feet to any abutting residential property line.
- (e) Public and private school engaged in teaching general curriculum for educational advancement, provided the structures are placed not less than fifty (50) feet from any residential property line.
- (f) Day Care Centers

### **Article V Section 5-4**

- (1) Permitted Uses Amended 7/8/24
- (a) Multiple family dwellings, including townhomes, apartments, condos, rooming houses, fraternities, sororities, and dormitories;
  - (b) Two-family dwellings;
  - (c) Nursing Home, retirement community;
  - (d) Playgrounds or Public Parks
- (e) Churches, synagogues, temples, or other places of worship provided that: 1) such use is housed in a permanent structure, and 2) no structure on the lot is closer than twenty-five (25) feet to any abutting residential property line; and
  - Customary accessory buildings incidental to the above permitted uses.
- (2) Conditional Uses. The following uses shall be permitted in this Residential District on a conditional basis upon recommendation by the Planning Commission and approval by the governing authority. The governing authority may accept the recommendation of the Planning Commission or may consider and grant approval of its own recommendation.
- (a) Day Care Center
- (b) Home occupations upon approval by the local governing authority.
- (c) Public utilities substations or sub-installations, including water towers, provided that: 1) such use is enclosed by a painted board or chain-link fence

or masonry wall, of at least six feet in height above finished grade; 2) there is neither an office nor a commercial operation nor storage of vehicles or equipment or materials on the premises; and 3) there is a landscaped strip not less than five feet in width and six feet in height planted and maintained around the facility. However, these requirements may be waived for small substations within neighborhood areas at the discretion of the Planning Commission.

- (d) Public and private school engaged in teaching general curriculum for educational advancement, provided the structures are placed not less than fifty (50) feet from any residential property line.
- (3) Lot and Building Requirements.



This report is prepared by the City of Pembroke Department of Development staff to provide information to the Pembroke Planning Commission for assistance in making an informed decision on this matter.

**Applicant:** City of Pembroke

Request: Amendments to Article IV, Section 6.1, "Required Improvements", and Article VII, Sections 7.1 & 7.2, "Design Standards" of the Subdivision Regulations

### I. EXECUTIVE SUMMARY:

The City of Pembroke is proposing amendments to the subdivision regulations, specifically Section 6.1 "Required Improvements", and Sections 7.1 & 7.2 "Design Standards".

The amendments to section 6.1 clean up language related to new development standards and include drainage standards previously adopted into the city's zoning ordinance.

The amendments to sections 7.1 & 7.2 officially adopt GDOT standards for the city's road design standards. The amendments further update the city's standards related to streets, road surface, ROW, parking, stormwater, etc. The amendment will provide clarity to developers and make the city's standards uniform to the state's standards, and easy to access.

### II. STAFF RECOMMENDATION:

As a result, Staff recommends to approve the amendments to the Subdivision Regulations.

### III. PLANNING COMMISSION RECOMMENDATION:

In accordance with Article X, Section 10-3 (a.), of the Pembroke Zoning Ordinance, the Planning Commission recommends that City Council approve the request.

### AN ORDINANCE AMENDING:

# SECTION 6.1 OF ARTICLE VI OF THE CITY OF PEMBROKE SUBDIVISION REGULATIONS

### **AND**

# SECTIONS 7.1 AND 7.2 OF ARTICLE VII OF THE CITY OF PEMBROKE SUBDIVISION REGULATIONS

**BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE** that Section 6.1 of Article VI of the City of Pembroke Subdivision Regulations is hereby amended so that those portions of Section 6.1 through Subsection 6.1.8. read as follows:

# ARTICLE VI. REQUIRED IMPROVEMENTS

The following list provides some of the improvements required for subdivision approval within the City of Pembroke.

- Site grading for adequate drainage
- Street signs, traffic control striping and street lights
- Graded streets and paved surfacing
- Water distribution system; domestic and reuse
- Sidewalks, and street trees
- Curb and gutter
- Sanitary Sewage System
- Storm drainage system
- Underground utilities in a dedicated easement

### 6.1 Required Improvements

A well-designed subdivision means little to a prospective lot buyer until he or she can see actual physical transformation of raw land into lots with all necessary improvements provided. Likewise, a well-designed subdivision is not an asset to the community until the necessary improvements have been installed. In order that prospective lot purchasers may get useable products and new subdivisions may be an asset rather than a liability to the community, the subdivider shall install and/or pay for the improvements required by these regulations necessary to serve his subdivision prior to the approval of the Final Plat.

- 6.1.1. Natural Gas. If gas lines are to be located in a street right-of-way, such lines shall be located outside the portion of the street to be surfaced to prevent having to cut into the paved surface to serve abutting properties.
- 6.1.2. Water Supply. Water mains, valves and fire hydrants shall be installed according to plans and specifications approved by the City Engineer and in accordance with

- the applicable rules and regulations of the County Health Department and the Georgia Environmental Protection Division.
- 6.1.3. Sanitary Sewerage. Sanitary sewers shall be installed to the plans and specifications approved by and in accordance with the applicable rules and regulations of the County Health Department and the Georgia Environmental Protection Division.
- 6.1.4. Sewage Disposal Systems. If City sewer is not available, prior to the construction of any community sewerage disposal system such as private septic tanks, an oxidation pond or other facility, the location, size, plans and specifications of such a facility shall be approved by and be in accordance with the applicable rules and regulations of the City of Pembroke along with the County Health Department and the Georgia Environmental Protection Division.
- 6.1.5. <u>Curbs and Gutters and Sidewalks</u>. Curb and gutters are required, and they shall be installed in accordance with plans and specifications approved by the City of Pembroke. Sidewalks shall be installed on both sides of the street and shall meet ADA requirements.
- 6.1.6. Street Grading and Surfacing. Street grading, base preparation and surfacing shall be carried out by the subdivider according to plans and specifications approved by the City of Pembroke. All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition
- 6.1.7. Storm Drainage. An adequate drainage system, including necessary open ditches, pipes, culverts, storm sewers, intersectional drains, drop inlets, bridges and other necessary appurtenances shall be installed by the subdivider according to plans and specifications approved by the City Engineer.

All developments that add greater than 5,000 sf of impervious areas shall adhere to the drainage requirements herein. A single-family house on one lot is exempted from the requirements so long as it is not part of a larger multi house development. Infill construction of a single house that does not subdivide an existing lot is also exempted. In any case where a property is subdivided into greater than one lot, detention or other best management practices must be provided to ensure that the post-developed storm water runoff does not exceed the predeveloped condition.

- 1) Developments that exceed 5,000 sf of impervious area shall adhere to the "Georgia Stormwater Management Manual Volume 2" minimum standard 1-4 and 6-11.
- 2) Pipes and Inlets shall be designed to convey the 25-year storm. Inlet capacity shall be designed to accommodate the 25-year storm having a gutter spread of not greater than seven feet.

- 3) The predeveloped curve number shall be based on existing conditions, impervious area, and soil characteristics.
- 4) All infrastructure must be able to safely pass the 100-year storm event.
- 5) Developments that impact flood zones shall provide compensatory cuts and fill or a no rise certification. In areas that impact Flood Zone A with no elevation, a study must be performed and provided such that the base flood elevation is available. A freeboard of 1' from BFE to finished floor must be provided on all structures adjacent to or within a flood zone area.
- 6) No fill shall be allowed within the floodway.
- 6.1.8. Street Name Signs. Street Name Signs shall be installed at all intersections within a subdivision. The location and design shall be approved by the Planning Commission and City Council. All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition

AND BE IT FURTHER ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE that Sections 7.1 and 7.2 of Article VII of the City of Pembroke Subdivision Regulations is hereby amended so as to read as follows:

# Section 3-31 Principal Building on a Lot.

Except in Manufactured Housing Parks, planned unit developments, groups of multifamily buildings, group housing projects, or commercial exceptions described in Article 3-4-1 (V)(a); only one (1) principal building and its customary accessory buildings may hereafter be erected on any lot of record. Any dwelling shall be deemed to be the principal building on the lot on which the same is located. An addition to an accessory building shall not be construed as a principal building.

**BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE** that Section 5-2 of Article V of the City of Pembroke Code Zoning Ordinances is hereby amended so as to read as follows:

### Sections 5-2

### (1) Permitted Uses

(a) One family detached dwelling. Manufactured Homes or Modular Homes must meet the requirements of Article III, Section 3-19 of this Zoning Ordinance. Amended 6-11-2012

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- (b) Unlighted, regulation-size or par three golf courses, including normal club house and pro shop activities, and other business activity associated with country clubs.
- (c) Non-commercial horticulture or agriculture, but not including the keeping of poultry or animals, except as provided for in number five (5) below.
- (d) Playgrounds or Public Parks

BE IT ORDAINED BY THE GOVERNING AUTHORITY OF THE CITY OF PEMBROKE that Section 5-3 of Article V of the City of Pembroke Code Zoning Ordinances is hereby amended so as to read as follows:

## ARTICLE VII. DESIGN STANDARDS

The City of Pembroke has adopted the Georgia Department of Transportation (GDOT) Design Policy Manual and latest addendums thereto as the basis for the design, review and construction of transportation facilities in the City of Pembroke. In addition, all other current design manuals and/or policies issued by GDOT shall be utilized as required for specific transportation elements not addressed in the GDOT Design Manual. Similarly, all construction related activities are governed by the GDOT Construction Manual. The purpose of this addendum is to augment these policies and guidelines set out in these documents with specific criteria related to the design and construction of transportation facilities within the City of Pembroke. All land development taking place in the City of Pembroke, at a minimum, shall reference and adhere to the design guidelines and policies for guidance and design criteria, of the following documents and latest addenda thereof:

- City of Pembroke Ordinances
- GDOT Design Manual
- GDOT Construction Manual
- FHWA Manual on Uniform Traffic Control Devices
- Highway Capacity Manual (HCM)
- ITE Trip Generation Manual
- AASHTO Policy on Geometric Design of Highways and Streets

The following design standards shall be considered minimum requirements in the platting of all subdivisions:

# 7.1 Streets

# 7.1.1. Classification

New streets shall typically be classified by the number of vehicle trips per day measured as average annual daily traffic (AADT) as follows:

- Arterials greater than 2000 and/or as designated by the City of Pembroke.
   Arterials include freeways, multilane highways, and other important roadways that supplement the Interstate System. They connect, as directly as practicable, the Nation's principal urbanized areas, cities, and industrial centers. Land access is limited. Posted speed limits on arterials usually range between 50 and 70 miles per hour.
- Collectors 1000 to 2000 and/or as designated by the City of Pembroke.
   Collectors are major and minor roads that connect local roads and streets with arterials.
   Collectors provide less mobility than arterials at lower speeds and for shorter distances. They balance mobility with land access. The posted speed limit on collectors is usually between 35 and 55 miles per hour.
- Local less than 1000 and/or as designated by the City of Pembroke.
   Local roads provide limited mobility and are the primary access to residential areas,
   businesses, farms, and other local areas. Local roads, with posted speed limits usually
   between 20 and 45 miles per hour, and are the majority of roads in the U.S.

In addition to the above, the City of Pembroke may also take into account and evaluate other elements that may affect the street classification such as the street design, surrounding roadway networks and connections thereto, adjacent land uses serviced by the road, etc.

- 7.1.2 Continuation of Adjoining Street System. The proposed street layout shall be coordinated with the street system of the surrounding area. Where possible, existing major streets shall be extended.
- 7.1.3. Access to Adjacent Properties. Where it is desirable to provide for street access to adjoining property, proposed streets shall be extended by dedication to the boundary of such property and a temporary turn-around shall be provided.
- 7.1.4. Street Names. Proposed streets, which are obviously in alignment with other existing and named streets, shall bear the assigned names of the existing streets. (It shall be unlawful for any person in laying out any new street or road to name such street or road on any plat, by marking, or in any deed or instrument, without first getting approval of the Planning Commission, the 911 Director and the City Council.) In no case shall the name of the proposed streets duplicate or be phonetically similar to existing street names irrespective of the use of suffix, street, avenue, boulevard, drive, place, court, etc.

7.1.5. Minor Streets. Minor streets shall be so laid out that their use by through traffic will be discouraged.

# 7.1.6. Local Road Design

Minimum centerline pavement grade with curb and gutter shall be 0.50%

Maximum centerline pavement grade shall be 4.0%.

Minimum roadway cross slope shall be 2.00%

Maximum Road design speed - thirty (30) MPH

Minimum sight distance - two hundred (200) feet

Minimum centerline radius of curve - one hundred (100) feet

- 7.1.7. <u>Pavement Sections.</u> Minimum roadway section design shall be based on road classification as follows, unless the Geotechnical Report recommends a more substantial design:
  - Arterial roads shall consist of eight (8) inches Graded Aggregate Base, two (2) inches 19 mm Superpave, and two (2) inches 12.5 mm Superpave.
  - Collector roads shall consist of eight (8) inches Graded Aggregate Base, and two (2) inches 12.5 mm Superpave.
  - Local roads shall consist of six (6) inches Graded Aggregate Base, and two (2) inches 9.5 mm Superpave.

The minimum required separation from the pavement base material and seasonal high-water table shall be two feet. Any deviations from this standard shall require remediation via the installation of underdrain in accordance with Section 7.1.23.

7.1.8. Roadway Sub-base. Roadway sub-base shall be a minimum of twenty-four (24) inches of granular material compacted to ninety-eight percent (98%) modified proctor density. Satisfactory laboratory and testing reports for all sub-base materials shall be submitted for review and approval prior to proof rolling. Testing locations shall occur at a rate of no greater than every 300 feet along the roadway centerline, alternating lanes with each test location. All roads shall be proof rolled and witnessed by a representative of the City of Pembroke prior to the rock base material being placed. All unsuitable material shall be removed and replaced with

acceptable material and retested.

The roadway base shall be compacted to ninety-eight percent (98%) modified proctor density. Satisfactory laboratory and testing reports for all base materials shall be submitted for review and approval prior to proof rolling. Testing locations shall occur at a rate of no greater than every 300 feet along the roadway centerline, alternating lanes with each test location. All roads shall be proof rolled and witnessed by a representative of the City of Pembroke prior to the installation of asphalt. All unsuitable material shall be removed and replaced with acceptable material and retested.

7.1.9. <u>Curb and Gutter.</u> Curb and gutter shall be constructed with Portland Cement Concrete having a twenty-eight (28) day strength of three thousand five hundred (3,500) psi. Slip form or machine curb and gutter shall have expansion material minimum of one-half (½) inch thick with a maximum spacing of one hundred (100) feet and abut a solid structure where one (1) day's pour abuts a previous day's pour.

Construction joints shall be sawed or tooled at a maximum spacing of ten (10) linear feet.

Residential curb and gutter shall have a minimum gutter thickness of six (6) inches.

Industrial/commercial curb and gutter shall have a minimum gutter thickness of eight (8) inches and shall be thicker as required by its location, soil conditions and traffic load.

Where curb and gutter is a part of the Road design, the maximum linear gutter line distance stormwater can traverse shall be three hundred (300) feet.

- 7.1.10. <u>Sight Distance.</u> No fence, wall, tree, terrace, building, sign, shrubbery, hedge, other planting or structure or object capable of obstructing driver vision will be allowed at intersections.
- 7.1.11. Clear Right-of-Way. Except as otherwise provided herein, it shall be required that the right-of-way be cleared, all surface improvements removed from the right-of-way, and all sub-surface improvements parallel to the pavement be re-located from under the pavement. All areas disturbed during construction and shoulders and slopes shall be seeded to obtain permanent vegetation for controlling erosion.

- 7.1.12. Roadside Parking. All Roads shall be considered to provide Road-side parking unless plans clearly state that Road-side parking will be prohibited. Where Road-side parking is prohibited, the Applicant shall provide for "No Parking" signage as part of the design. Where Road-side parking is provided, a nine (9) foot wide paved surface will be provided for each parking lane.
- 7.1.13. <u>Horizontal Curves.</u> On Collector Roads, the minimum centerline radius of curvature shall not be less than three hundred fifty (350) feet. On Local Roads, the minimum centerline radius of curvature shall not be less than one hundred (100) feet.
- 7.1.14. <u>Vertical Curves.</u> All points of vertical inflection along the roadway centerline with a total grade break of 1.5% or greater shall have a vertical curve inserted.
- 7.1.15. <u>Reserved Strips Prohibited.</u> A Road intended to be dedicated to the City shall not be located so that a narrow buffer strip is maintained between the right-of-way of such Road and adjacent property in such a manner as to deny access to another adjacent property.
- 7.1.16. Access to Arterial Roads. No residential Road, driveway, or other access point shall enter an Arterial Road at a point nearer than five hundred (500') feet from an existing highway, Road, driveway, or other access point; except, where an Existing Lot of Record would be rendered unusable by the strict application of this provision.
- 7.1.17. Private access easements. Private access easements may be approved by the Planning Commission for the subdivision and creation of only one lot fronting on a public road. The private access easement providing access to one structure or an unimproved road need not be paved or have curb and gutter. The proposed use of an existing private access easement as the access to further subdivision and lot creation will require a dedicated right-of-way with a minimum of sixty (60) feet.
- 7.1.18. <u>Right Angle Intersections</u>. Street intersections shall be as nearly at right angles as practicable.
- 7.1.19. <u>Cul-de-sac</u>. Maximum allowable length not to extend more than twelve hundred (1200) feet in length and provided with a turn-around having a roadway diameter of at least one hundred (100) feet and a right-of-way diameter of at least one hundred and ten (110) feet. Temporary dead-end streets shall be provided with a turn-around having a thirty (30) foot-radius.

- 7.1.20. <u>Alleys</u>. Service alleys or drives may be required in multiple dwelling, commercial, and industrial developments and shall have a minimum surface treatment width of fifteen (15) feet, but shall not be provided in one (1) and two (2) family residential developments unless the subdivider provides evidence satisfactory to the Planning Commission of the need for alleys.
- 7.1.21. <u>Residential Subdivision</u>. Except as otherwise provided herein, Roads within Subdivisions shall have a standard minimum Road width of twenty-seven (27) feet back-to-back with curb and gutter.

When Roadside swales or ditches are permitted, the minimum Road width shall be twenty-four (24) feet wide with a six and one-half (6.5) foot shoulder or greater. Road width at fire hydrants shall conform to fire code requirements if greater than minimum width required above. Where roadside parking is required, the paved Road width will be increased nine (9) feet for each parking lane.

- 7.1.22. Phased Construction. All roads classified as collectors and arterials shall be constructed in a two (2) phased approach which requires the installation of the two (2) inch surface course to occur no earlier than at least seventy-five percent (75%) of the lots accessing the road have been constructed, or three (3) years from the time of acceptance of the roadway base section, whichever comes first. Local roads may be constructed in their entirety.
- 7.1.23. <u>Underdrains.</u> In cases where the 2' seasonal high ground water separation to the bottom of the road base cannot be met, remediation technique(s) including, but not limited to, subgrade drains, may be submitted for consideration. The written request shall be accompanied by a Geotechnical Report for the problematic areas of the site along with a layout plan of the proposed development which indicates the boring locations as referenced in the report. The Geotechnical Report shall include recommendations for groundwater management on site based on specific site soil conditions and characteristics. All areas which do not meet the 2' seasonal high separation requirement shall be clearly identified on the plan along with the depths to seasonal high groundwater from existing grade. The Engineer of Record shall provide the remediation technique(s) including, but not limited to, subgrade drains, to be considered to prevent the roadway subbase from being permanently inundated with groundwater. The Engineer shall also provide all site-specific supporting soil data, hydrological analysis, and engineering design necessary to justify the request.

Construction plans shall include all necessary details associated with the remediation technique(s). Should subgrade drains be incorporated into the design,

the pipe diameters shall be as required by the Geotechnical Engineers' recommendation, but in no case less than six (6) inches in diameter. Subgrade drain inverts shall not be less than the project's static pond elevation or immediate downstream outfalls. Minimum gradient for all subgrade drain pipes shall be 0.15%.

Proper construction techniques and installation in accordance with the approved design is critical for the long-term functionality of the design, especially the subgrade drains therefore, the final approval process shall include a certification from the Design Engineer for the installation of all subgrade drains and any other appurtenances associated with the approved remediation techniques. The document shall certify that either the design engineer and/or his or her duly authorized representative have witnessed the satisfactory installation of all piping and structures in conjunction with the approved remediation techniques. The Certification shall be accompanied by approved shop drawings, material certifications, daily inspection reports, photographs, and any other associated documentation. Final Plat approval shall be provided only after all documentation has been submitted and the City of Pembroke is satisfied that all improvements have been installed in accordance with the approved design.

Use of road underdrain systems in conjunction with excessive or inordinate cutting (excavation) of road grade is prohibited. Excavation for road construction must be minimized to limit the magnitude of the underdrain system required.

The project's professional geotechnical engineer, who must be licensed in Georgia, shall provide the following design certification for all roads within the development that propose to use subgrade drainage to lower the groundwater level:

| "This is to certif | ly that the underd  | rain design for           | road(s), extending       |
|--------------------|---------------------|---------------------------|--------------------------|
| from station       | to station          | , has been designed s     | such that the separation |
| between the bott   | tom of the roadw    | ay base and the artificia | ally induced wet season  |
| groundwater tal    | ble is no less than | two (2) feet for the enti | ire width of pavement."  |

Prior to acceptance of the roadway by the City of Pembroke, the project's professional geotechnical engineer shall certify, in writing, that the underdrain system has been installed in accordance with approved plans and is functioning as designed.

The project engineer must demonstrate through calculations and design considerations that the project's stormwater facilities shall be designed to accommodate expected flow contributed by the underdrain system.

Use of underdrain systems are prohibited in areas designated as groundwater recharge areas by the United States Geological Survey (USGS).

Underdrain systems may be permitted within a zone of influence of jurisdictional wetlands only if it is demonstrated by the applicant, providing competent substantial evidence and sound engineering techniques and data, that the use of an underdrain system will not create negative impacts to wetlands.

No trees are permitted to be planted within the right-of-way or within twenty feet (20') of an underdrain system without the installation of root guards.

A minimum of six-inch (6") pipe is required for all underdrains.

Cleanouts must be installed at the upper end of each subgrade drainage pipe branch, and intermediate riser cleanouts place at intervals of 100 linear feet, and at sharp angles or directional changes greater than 10 degrees. Cleanout risers shall be the small diameter as the subgrade drainage pipe.

Underdrains shall not significantly affect water table conditions on adjacent property. The project's professional geotechnical engineer or hydrologist must demonstrate, utilizing sound and generally acceptable engineering practices and scientifically reliable data, that lowering the seasonal high groundwater table will not adversely impact adjacent properties or surface waters.

The City of Pembroke shall have the authority to require the developer to implement specific measures deemed necessary to avoid or correct any adverse impact of drainage facilities upon adjacent properties.

The planned use of underdrain systems to provide minimum separation between the seasonal high groundwater table and the bottom of roadway base on subdivisions proposed for development utilizing on-site sewage treatment systems (i.e., septic tanks and absorption fields) shall be prohibited except under the following circumstances:

- a. Lots within the area proposed for underdrains shall be a minimum of one-half  $(\frac{1}{2})$  acre.
- b. The minimum distance between the roadway underdrain and the closest edge of a drain field shall be not less than seventy-five (75) feet.

The use of limestone, recycled crushed concrete, or other alternative base material for roadways using subgrade drainage systems to lower the groundwater table shall be prohibited. Only granite graded aggregate base (GAB) shall be allowed.

As part of the request to utilize subgrade drainage, the Project engineer must provide design considerations demonstrating how the subgrade drainage system will react during a 1.2-inch (85th percentile) storm event. If the roadway subbase becomes inundated during these storm events, the project engineer must provide calculations presenting the anticipated drawdown time required for the system to return to norm, and the subgrade system to return groundwater levels to a minimum of 2-ft below roadway base. This drawdown time shall not exceed 72-hours.

# 7.1.24. Property Access.

- (1) Permits for all driveways, curb cuts, utilities, and roadside culverts, that are not part of a larger project with approved civil drawings, are required prior to the start of construction.
- (2) Installation of new driveways on curb and gutter roads must conform with the driveway curb cut design criteria as applicable in Section 7.1.25, herein.
- 7.1.25. <u>Curb-Cut Location and Design.</u> Where the lowering or cutting away of curbs, or the placement of driveway pipe and/or asphalt on non-curb sections is required for the purpose of ingress and egress to a Lot or Subdivision, such work shall be subject to the following provisions: The City of Pembroke may require submission and review of an access plan. Access to each parcel in PUD developments and commercial/ industrial properties shall be reviewed during Construction Plan review.

### (1) Residential Curb Cuts:

- (a) No more than two (2) combined entrances and exits shall be allowed for any Lot, having a frontage less than two hundred (200) feet on any one Local Road. Additional entrances or exists for Lots having a frontage in excess of two hundred (200) feet may be permitted at the rate of one (1) entrance/exit for each additional one hundred (100) feet of frontage.
- (b) For Local Road intersections (corner Lots), no curb cuts shall be located within twenty-five (25) feet of the intersection of two (2) curb lines or such lines extended, or within fifteen (15) feet of the end of curb radius, whichever is more restrictive. On Collector Roads, no driveway shall be within seventy (70) feet of the intersection of two curb lines or curb lines extended or fifty-five (55) feet of the intersection of the two (2) right-of-way lines, or within fifty (50) feet of the end of curb radius.
- (c) The distance between any two curb cuts on the same side of the roads shall not be less than ten (10') feet on Local Roads and twenty-five (25') feet on Collector Roads. Said distance shall be measured between the points of tangency of the

- curb return radii. Where the posted speed limit on any road is 50 MPH or greater, the minimum distance shall be 350 feet or the greatest obtainable distance from existing drives.
- (d) The width of the driveway shall not exceed twenty (20) feet at the right-of-way line and twenty four (24) feet at the edge of the pavement.
- (e) Curb cuts for abandoned sites, or where access is obstructed due to parking lots, buildings, or other permitted structures, the old driveway shall be removed, the sidewalk (if existing) shall be replaced, the curb and gutter shall be replaced, fill dirt backfilled to its natural state and grassed; where it is a piped drive to a dirt or paved road, said pipe shall be removed, asphalt removed, and the shoulders and ditch regraded to its previous state.

- 7.1.26. <u>Commercial and Multi-Family Curb-Cuts.</u> Commercial and Multi-family curb cuts shall be installed by the property owner in accordance with the approved plans.
- (a) No more than two (2) combined entrances and exits shall be allowed for any parcel where the frontage is less than three hundred (300) feet on any one (1) Road. On parcels with less than one hundred-fifty (150) feet of frontage, only one (1) combined entrance and exit shall be allowed (two one-way driveways shall be allowed in lieu of the one two-way). Additional entrances or exits for parcels of property having frontage in excess of three hundred (300) feet may be permitted at the rate of one entrance/exit for each additional one hundred-fifty (150) feet of frontage.
- (b) For Local Road intersections (corner lots), no curb cuts shall be located within twenty-five (25) feet of the intersection of two (2) curb lines or such lines extended, or within fifteen (15) feet of the intersection of (2) two right-of-way lines or such lines extended, or within fifteen &15) feet of the end of curb radius, whichever is more restrictive. On Collector Roads, no driveway shall be within seventy (70) feet of the intersection of two curb lines or curb line extended or fifty-five (55) feet of the intersection of the two (2) right-of-way lines, or within fifty (50) feet of the end of curb radius.
- (c) The distance between any two (2) curb cuts on the same side of a Road shall be not less than twenty-five (25) feet on Local Roads and twenty-five (25) feet on Collector Roads. Said distance shall be measured between the points of tangency of the curb return radii.

- (d) All driveways shall be constructed so as to be at least twelve and one-half (12.5) feet radius for multi-family and at least twenty-five (25) feet radius for commercial development.
- (e) Maximum width of any driveway shall not exceed thirty-five (35) feet measured at the end of the radii, minimum of twelve and one-half (12.5) feet radius.
- (f) Curb cuts for abandoned sites, or where access is obstructed due to parking lots, buildings, or other permitted structures, the old driveway shall be removed, then sidewalk (if existing) shall be replaced, the curb and gutter shall be replaced, fill dirt backfilled to its natural state and grassed; where it is a piped driveway to a dirt or paved road, said pipe shall be removed, asphalt removed and the shoulders and ditch regraded to its previous state.
- 7.1.27. <u>Traffic Control Plan.</u> An Applicant shall furnish a traffic control plan for all subdivisions involving public or private right-of-ways for review and approval. This requirement applies to all subdivisions which increase the traffic count and/or have an impact on traffic routing. Traffic counts shall be determined in conformance with the most current edition of the Institute of Transportation Engineer's Trip Generation Manual (ITE Manual).

The traffic control plan shall indicate all traffic control/warning signs and devices required for the safe and orderly flow of traffic. This plan shall include, but not be limited to, signs such as: NO PARKING, STOP, DEAD END, SPEED LIMIT, SLOW-CHILDREN PLAYING, YIELD PEDESTRIAN CROSSING, ROAD NAME, and pavement striping.

An Applicant shall also be responsible for any changes or additions required in the road from which access to the subdivision is authorized. The City of Pembroke may require additional information and traffic engineering studies to determine impact on the neighboring road system by the proposed subdivision. The improvements to the neighboring road system that may be required include turn lanes, passing lanes, acceleration lanes, deceleration lanes, by-pass lanes, signs, pavement markings, etc.

All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition. All traffic control and warning signs shall be of engineering grade highest available reflectorized quality, made on extruded aluminum sign blanks and mounted on galvanized uchannel posts. All incidental hardware for signage shall meet or exceed specifications of the Georgia Department of Transportation.

All traffic control signage and pavement markings shall be in accordance with the latest edition of the MUTCD. All pavement markings and striping shall be

- thermoplastic with high reflectivity glass beads. Minimum striping width shall be five (5) inches.
- 7.1.28. Utility Location. All new utility installations within the City of Pembroke ROW shall be underground.
- 7.1.29. Tree Requirements Incorporated By Reference. (Amended 8-11-14)

  The tree ordinance of the city, is incorporated by reference into the Subdivision Regulations and made a part of this Article as though fully set out herein. A current copy of the tree ordinance shall be maintained on file in the office of the city clerk where it shall be made available for public inspection.
- 7.1.30. <u>Railroads</u>. Railroad rights-of-way where so located as to affect the subdivision of adjoining lands shall be treated as follows:
  - a) In residential districts a buffer strip not less than 25 feet in depth in addition to the normal depth of the lot required in the district shall be provided adjacent to the railroad right-of-way. This strip shall be part of the platted lots and shall be so designated on the plat: "This strip is reserved for the planting of trees and shrubs by the owner. The placement of structures hereon is prohibited."
  - b) In districts zoned for business, commercial or industrial uses, the nearest street extending parallel or approximately parallel to the railroad shall, wherever practicable, be at a sufficient distance there from to ensure suitable depth for commercial or industrial sites.
  - All other streets which are parallel to the railroad, when intersecting a street which crosses the railroad grade, shall, to the extent practicable, be at a distance of at least 150 feet from the railroad right-of-way. Such distance shall be determined with due consideration of the minimum distance required for future separation of grades by means of appropriate approach gradients.
- 7.2 <u>Easements.</u> All easements shall be shown on the preliminary and final plats and shall conform to the requirements below.
  - 7.2.1. Access All easements for vehicular access to a facility, infrastructure or structure shall be a minimum of 20 feet wide unless otherwise indicated herein. Additional width or areas for turning movements may be required to accommodate the vehicles that will be utilizing the easement for access.
  - 7.2.2. Utility All easements for utilities such as power and cable shall be a maximum of 5 feet wide when adjacent and parallel to a street right-of-way and a maximum of 10 feet wide in other locations.

- 7.2.3. Water (potable and non-potable) piping All easements for underground water piping and appurtenances shall be centered on the pipe and the width of the easement is based on the depth of the pipe below finished grade as indicated below.
- a. Depth  $\leq 8$  ft. -20 ft. easement
- b. Depth over 8 ft. -20 ft. plus an additional 2 ft. for every foot deeper than 8 ft. up to a maximum easement of 30 ft.
- 7.2.4. Sewer piping All easements for underground sewer piping and appurtenances shall be centered on the pipe and the width of the easement is based on the depth of the pipe invert below finished grade as indicated below.
- a) Depth  $\leq 8$  ft. -20 ft. easement
- b) Depth between 8 ft. and  $\leq$  14 12 ft. 25 ft. easement
- c) Depth greater than 14 feet 50 ft. easement
- 7.2.5. Stormwater piping All easements for underground stormwater piping and appurtenances shall be centered on the pipe and the width of the easement is based on the size of the pipe and/or the depth of the pipe invert below finished grade as indicated below.
- a. Pipe with a diameter  $\leq 24$ " and at a depth  $\leq 8$  ft. -20 ft. easement
- b. Pipe with a diameter > 24" or any sized pipe with a depth > 8 ft. -25 ft. easement

| ADOPTED THIS DAY OF APRIL, 202 | 5.                     |
|--------------------------------|------------------------|
| ATTEST:                        | TIFFANY ZEIGLER, MAYOR |
| ARLENE HOBBS, CLERK OF COUNCIL | -                      |

| FIRST READING:  | , 2025 |
|-----------------|--------|
| SECOND READING: | , 2025 |

# ARTICLE VI. REQUIRED IMPROVEMENTS

The following list provides some of the improvements required for subdivision approval within the City of Pembroke.

- -Site grading for adequate drainage
- -Street signs, traffic control striping and street lights
- -Graded streets and paved surfacing
- -Community Wwater supply and distribution system domestic and reuse
- -Street signs, Ssidewalks, and street trees
- -Paved streets ( eurb and gutter if required by the City of Pembroke)
- -Community water supply and system
- -Sanitary Sewage System if soil is unable to support the required number of on site sewage disposal units, tie to City sewer if available
- -Storm drainage system
- -Underground utilities in a dedicated easement
- 6.1 Required Improvements (Amended on 11/10/2008)

A well-designed subdivision means little to a prospective lot buyer until he or she can see actual physical transformation of raw land into lots with all necessary improvements provided. Likewise, a well-designed subdivision is not an asset to the community until the necessary improvements have been installed. In order that prospective lot purchasers may get useable products and new subdivisions may be an asset rather than a liability to the community, the subdivider shall install and/or pay for the improvements required by these regulations necessary to serve his subdivision prior to the approval of the Final Plat.

- 6.1.1. Natural Gas When available. When gas lines are located in a street right-of-way, where possible, such lines shall be located outside the portion of the street to be surfaced to prevent having to cut into the paved surface to serve abutting properties.
- 6.1.2. Water Supply. If a water system is installed in a subdivision, water mains, valves and fire hydrants shall be installed according to plans and specifications approved by the City Engineer and in accordance with the rules and administrative regulations of the County Health Department and or the Georgia Environmental Protection Division, whethever is applicable. When the water main is located in the street surface to serve the abutting lots, a connection shall be stubbed out to the property line to serve each lot before the street is surfaced.
- 6.1.3. Sanitary Sewerage. If a sanitary sewer is installed in a subdivision, sewers shall be installed to the plans and specifications approved by and in accordance with the rules and administrative regulations of the County Health Department and or the Georgia Environmental Protection Division. When the sewer line is located in a street right-of way and it will be

necessary to cut into the street surface to serve the abutting lots, a connection shall be stubbed out to the property line to serve each lot prior to surfacing the street.

- 6.1.4. Sewage Disposal Systems. If City sewer is not available, Pprior to the construction of any community sewerage disposal system such as private septic tanks, an oxidation pond or other facility, the location, size, plans and specifications of such a facility shall be approved by and be in accordance with the rules and administrative regulations of the Planning Commission

  Pembroke and along with the County Health Department and/or the Georgia Environmental Protection Division, whichever is applicable.
- 6.1.5. Curbs and Gutters and Sidewalks. If concrete curbs or paved valley type Curb and gutters are required, and they shall be installed in accordance with plans and specifications approved by the City Council of Pembroke. Sidewalks shall be installed on both sides of the street and shall meet ADA requirements.
- 6.1.6. Street Grading and Surfacing. Street grading, base preparation and surfacing shall be carried out by the subdivider according to plans and specifications approved by the Georgia Department of Transportation City of Pembroke, All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition
- 6.1.7. Storm Drainage. An adequate drainage system, including necessary open ditches, pipes, culverts, storm sewers, intersectional drains, drop inlets, bridges and other necessary appurtenances shall be installed by the subdivider according to plans and specifications approved by the City Engineer.

All developments that add greater than 5,000 sf of impervious areas shall adhere to the drainage requirements herein. A single family house on one lot is exempted from the requirements so long as it is not part of a larger multi house development. Infill construction of a single house that does not subdivide an existing lot is also exempted. In any case where a property is subdivided into greater than one lot, detention or other BMPs must be provided to ensure that the post developed storm water runoff does not exceed the predeveloped condition.

- Developments that exceed 5,000 sf of impervious area shall adhere to the "Georgia Stormwater Management Manual Volume 2" minimum standard 1-4 and 6-11.
- Pipes and Inlets shall be designed to convey the 25-year storm. Inlet capacity shall be designed to accommodate the 25-year storm having a gutter spread of not greater than seven feet.
- The predeveloped curve number shall be based on existing conditions, impervious area, and soil characteristics.

- All infrastructure must be able to safely pass the 100-year storm event.
- 5) Developments that impact flood zones shall provide compensatory cuts and fill or a no rise certification. In areas that impact Flood Zone A with no elevation, a study must be performed and provided such that the base flood elevation is available. A freeboard of 1' from BFE to finished floor must be provided on all structures adjacent to or within a flood zone area.
- No fill shall be allowed within the floodway.
- 6.1.8. Street Name Signs. Street Name Signs shall be installed at all intersections within a subdivision. The location and design shall be approved by the Planning Commission and City Council. All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition.
- 6.1.9. Topsoil. Topsoil shall not be removed from residential lots or used as spoil, but shall be redistributed so as to provide at least six (6) inches of cover on the lots and at least four (4) inches of cover between sidewalks and curbs, and shall be stabilized by seeding or planting. The excavation and treatment of overburden during construction shall be inspected by the Soil and Water Conservationist.
- 6.1.10 Sod Amended 11/11/2008
  - Sod will be planted in the entirety of the front yard of every lot. The only area of exception of sod will be for landscaping purposes or building structures such as driveways, sidewalks, or light poles. The sod will extend from the rear edge of the home to the sidewalk or street curb. Sod shall be of a grass suitable for the City of Pembroke, Georgia, and will be approved by the City of Pembroke. Only grasses that will survive in Pembroke's climate will be used. The sod shall be reasonably free of weeds, pests, and disease. Seed will be used to stabilize the remaining parcel of land to the side and rear of the home, which will be approved by the City of Pembroke. Said seed shall be of a type or mixture that will produce adequate coverage within ninety (90) days from sowing. Irrigation of sod must adhere to the guidelines in the City of Pembroke Outdoor Watering Ordinance.
  - 6.1.11 Non-Potable Reuse Line (NPRL) Amended 01/09 a non-potable reuse water main shall be installed in a subdivision that is or will be located within a one mile radius of an existing or proposed reuse water distribution main. The system shall include reuse water mains, valves, fittings, hydrants and shall be installed in accordance with the plans and specifications approved by the City of Pembroke. The system shall be designed and installed in accordance with the City of Pembroke Non-Potable Water Reuse Design Guide.

Planning Commission and the local governing authority. The governing authority may locate and construct or may accept any other street if the ordinance or other measure for such location and construction, or for acceptance, is first submitted to the Planning Commission for its approval, and if disapproved by the Planning Commission, is accepted by City Council. A street approved by the Planning Commission upon submission, or by the governing body having appropriate jurisdiction or constructed or accepted by a vote of the City Council, shall have the status of an approved street as though it had originally been shown on a plat approved by the Planning Commission or on a plat made and adopted by the Planning Commission.

# ARTICLE VII. DESIGN STANDARDS

The City of Pembroke has adopted the Georgia Department of Transportation (GDOT) Design Policy Manual and latest addendums thereto as the basis for the design, review and construction of transportation facilities in the City of Pembroke. In addition, all other current design manuals and/or policies issued by GDOT shall be utilized as required for specific transportation elements not addressed in the GDOT Design Manual. Similarly, all construction related activities are governed by the GDOT Construction Manual. The purpose of this addendum is to augment these policies and guidelines set out in these documents with specific criteria related to the design and construction of transportation facilities within the City of Pembroke. All land development taking place in the City of Pembroke, at a minimum, shall reference and adhere to the design guidelines and policies for guidance and design criteria, of the following documents and latest addenda thereof:

- City of Pembroke Ordinances
- GDOT Design Manual
- GDOT Construction Manual
- FHWA Manual on Uniform Traffic Control Devices
- Highway Capacity Manual (HCM)
- ITE Trip Generation Manual
- AASHTO Policy on Geometric Design of Highways and Streets

The following design standards shall be considered minimum requirements in the platting of all subdivisions:

## 7.1 Streets

7.1.1 Conformity to Existing Maps or Plans. The location and width of all proposed streets shall be in conformity with official plans and maps and with existing amended plans of the Planning Commission

### Classification

New streets shall typically be classified by the number of vehicle trips per day measured as average annual daily traffic (AADT) as follows:

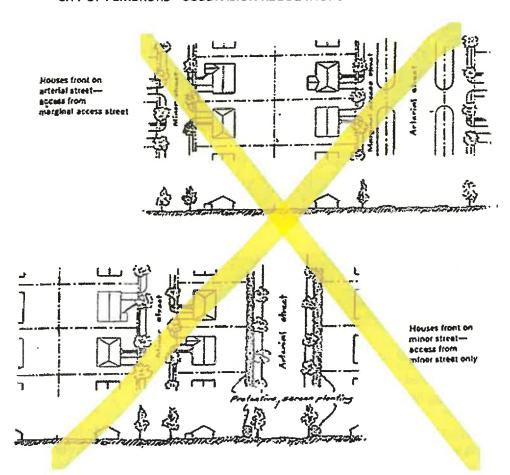
Arterials – greater than 2000 and/or as designated by the City of Pembroke.
 Arterials include freeways, multilane highways, and other important roadways that supplement the Interstate System. They connect, as directly as practicable, the Nation's

principal urbanized areas, cities, and industrial centers. Land access is limited. Posted speed limits on arterials usually range between 50 and 70 miles per hour.

- Collectors 1000 to 2000 and/or as designated by the City of Pembroke.
   Collectors are major and minor roads that connect local roads and streets with arterials.
   Collectors provide less mobility than arterials at lower speeds and for shorter distances. They balance mobility with land access. The posted speed limit on collectors is usually between 35 and 55 miles per hour.
- Local less than 1000 and/or as designated by the City of Pembroke.
- Local roads provide limited mobility and are the primary access to residential areas, businesses, farms, and other local areas. Local roads, with posted speed limits usually between 20 and 45 miles per hour, and are the majority of roads in the U.S.

In addition to the above, the City of Pembroke may also take into account and evaluate other elements that may affect the street classification such as the street design, surrounding roadway networks and connections thereto, adjacent land uses serviced by the road, etc.

- 7.1.2 <u>Continuation of Adjoining Street System</u>. The proposed street layout shall be coordinated with the street system of the surrounding area. Where possible, existing major streets shall be extended.
- 7.1.3. Access to Adjacent Properties. Where it is desirable to provide for street access to adjoining property, proposed streets shall be extended by dedication to the boundary of such property and a temporary turn-around shall be provided.



- 7.1.4. Street Names. Proposed streets, which are obviously in alignment with other existing and named streets, shall bear the assigned names of the existing streets. (It shall be unlawful for any person in laying out any new street or road to name such street or road on any plat, by marking, or in any deed or instrument, without first getting approval of the Planning Commission, the 911 Director and the City Council.) In no case shall the name of the proposed streets duplicate or be phonetically similar to existing street names irrespective of the use of suffix, street, avenue, boulevard, drive, place, court, etc.
- 7.1.5. Minor Streets. Minor streets shall be so laid out that their use by through traffic will be discouraged.
- 7.1.86. Street Jogs. Street jogs with centerline offsets by less than two hundred (200) feet shall be prohibited.
  Local Road Design

Minimum centerline pavement grade with curb and gutter shall be 0.50%

Maximum centerline pavement grade shall be 4.0%.

Minimum roadway cross slope shall be 2.00%

Maximum Road design speed - thirty (30) MPH

Minimum sight distance - two hundred (200) feet

Minimum centerline radius of curve - one hundred (100) feet

- 7.1.7. Pavement Sections. Minimum roadway section design shall be based on road classification as follows, unless the Geotechnical Report recommends a more substantial design:
  - Arterial roads shall consist of eight (8) inches Graded Aggregate Base, two
     (2) inches 19 mm Superpave, and two (2) inches 12.5 mm Superpave.
  - Collector roads shall consist of eight (8) inches Graded Aggregate Base, and two (2) inches 12.5 mm Superpave.
  - Local roads shall consist of six (6) inches Graded Aggregate Base, and two (2) inches 9.5 mm Superpave.

The minimum required separation from the pavement base material and seasonal high-water table shall be two feet. Any deviations from this standard shall require remediation via the installation of underdrain in accordance with Section 7.1.23.

7.1.8. Roadway Sub-base. Roadway sub-base shall be a minimum of twenty-four (24) inches of granular material compacted to ninety-eight percent (98%) modified proctor density. Satisfactory laboratory and testing reports for all sub-base materials shall be submitted for review and approval prior to proof rolling. Testing locations shall occur at a rate of no greater than every 300 feet along the roadway centerline, alternating lanes with each test location. All roads shall be proof rolled and witnessed by a representative of the City of Pembroke prior to the rock base material being placed. All unsuitable material shall be removed and replaced with acceptable material and retested.

The roadway base shall be compacted to ninety-eight percent (98%) modified proctor density. Satisfactory laboratory and testing reports for all base materials shall be submitted for review and approval prior to proof rolling. Testing locations shall occur at a rate of no greater than every 300 feet along the roadway centerline, alternating lanes with each test location. All roads shall be proof rolled and witnessed by a representative of the City of Pembroke prior to the installation of

asphalt. All unsuitable material shall be removed and replaced with acceptable material and retested.

7.1.9. Curb and Gutter. Curb and gutter shall be constructed with Portland Cement Concrete having a twenty-eight (28) day strength of three thousand five hundred (3,500) psi. Slip form or machine curb and gutter shall have expansion material minimum of one-half (½) inch thick with a maximum spacing of one hundred (100) feet and abut a solid structure where one (1) day's pour abuts a previous day's pour.
Construction joints shall be sawed or tooled at a maximum spacing of ten (10)

Construction joints shall be sawed or tooled at a maximum spacing of ten (10) linear feet.

Residential curb and gutter shall have a minimum gutter thickness of six (6) inches.

Industrial commercial curb and gutter shall have a minimum gutter thickness of eight (8) inches and shall be thicker as required by its location, soil conditions and traffic load.

Where curb and gutter is a part of the Road design, the maximum linear gutter line distance stormwater can traverse shall be three hundred (300) feet.

- 7.1.10. Sight Distance. No fence, wall, tree, terrace, building, sign, shrubbery, hedge, other planting or structure or object capable of obstructing driver vision will be allowed at intersections.
- 7.1.11. Clear Right-of-Way. Except as otherwise provided herein, it shall be required that the right-of-way be cleared, all surface improvements removed from the right-of-way, and all sub-surface improvements parallel to the pavement be re-located from under the pavement. All areas disturbed during construction and shoulders and slopes shall be seeded to obtain permanent vegetation for controlling erosion.
- 7.1.12. Roadside Parking. All Roads shall be considered to provide Road-side parking unless plans clearly state that Road-side parking will be prohibited. Where Road-side parking is prohibited, the Applicant shall provide for "No Parking" signage as part of the design. Where Road-side parking is provided, a nine (9) foot wide paved surface will be provided for each lane.
- 7.1.13. Horizontal Curves. On Collector Roads, the minimum centerline radius of curvature shall not be less than three hundred fifty (350) feet. On Local Roads, the minimum centerline radius of curvature shall not be less than one hundred (100) feet.

- 7.1.14. Vertical Curves. All points of vertical inflection along the roadway centerline with a total grade break of 1.5% or greater shall have a vertical curve inserted.
- 7.1.15. Reserved Strips Prohibited. A Road intended to be dedicated to the County shall not be located so that a narrow buffer strip is maintained between the right-of-way of such Road and adjacent property in such a manner as to deny access to another adjacent property.
- 7.1.16. Access to Arterial Roads. No residential Road, driveway, or other access point shall enter an Arterial Road at a point nearer than five hundred (500') feet from an existing highway. Road, driveway, or other access point; except, where an Existing Lot of Record would be rendered unusable by the strict application of this provision.
- 7.1. 1317. Private access easements. Private access easements may be approved by the Planning Commission for the subdivision and creation of only one lot fronting on a public road. The private access easement providing access to one structure or an unimproved road need not be paved or have curb and gutter. The proposed use of an existing private access easement as the access to further subdivision and lot creation will require a dedicated right-of-way with a minimum of sixty (60) feet.
- 7.1.918. <u>Right Angle Intersections</u>. Street intersections shall be as nearly at right angles as practicable.
- 7.1.1019. Cul-de-sac. A-minor street, Maximum allowable length not to extend more than twelve hundred (1200) feet in length and provided with a turn-around having a roadway diameter of at least eighty (80) one hundred (100) feet and a right-of-way diameter of at least one hundred (100) one hundred and ten (110) feet.

  Temporary dead-end streets shall be provided with a turn-around having a thirty (30) foot-radius. Cul-de-sac streets shall serve as minor streets only. Cul-de-sac streets shall not have additional cul-de-sac streets accessed from them.
- 7.1. 1120. Alleys. Service alleys or drives may be required in multiple dwelling, commercial, and industrial developments and shall have a minimum surface treatment width of fifteen (15) feet, but shall not be provided in one (1) and two (2) family residential developments unless the subdivider provides evidence satisfactory to the Planning Commission of the need for alleys.
- 7.1.21. <u>Residential Subdivision</u>. Except as otherwise provided herein, Roads within Subdivisions shall have a standard minimum Road width of twenty-seven (27) feet back-to-back with curb and gutter.

When Roadside swales or ditches are permitted, the minimum Road width shall be twenty-four (24) feet wide with a six and one-half (6.5) foot shoulder or greater. Road width at fire hydrants shall conform to fire code requirements it greater than minimum width required above. Where roadside parking is required, the paved Road width will be increased nine (9) feet for each lane.

- 7.1.22 Phased Construction. All roads classified as collectors and arterials shall be constructed in a two (2) phased approach which requires the installation of the two (2) inch surface course to occur no earlier than at least seventy-five percent (75%) of the lots accessing the road have been constructed, or three (3) years from the time of acceptance of the roadway base section, whichever comes first. Local roads may be constructed in their entirety.
- 7.1.23. Underdrains. In cases where the 2' seasonal high ground water separation to the bottom of the road base cannot be met, remediation technique(s) including, but not limited to, subgrade drains, may be submitted for consideration. The written request shall be accompanied by a Geotechnical Report for the problematic areas of the site along with a layout plan of the proposed development which indicates the boring locations as referenced in the report. The Geotechnical Report shall include recommendations for groundwater management on site based on specific site soil conditions and characteristics. All areas which do not meet the 2' seasonal high separation requirement shall be clearly identified on the plan along with the depths to seasonal high groundwater from existing grade. The Engineer of Record shall provide the remediation technique(s) including, but not limited to, subgrade drains, to be considered to prevent the roadway subbase from being permanently inundated with groundwater. The Engineer shall also provide all site-specific supporting soil data, hydrological analysis, and engineering design necessary to justify the request.

Construction plans shall include all necessary details associated with the remediation technique(s). Should subgrade drains be incorporated into the design, the pipe diameters shall be as required by the Geotechnical Engineers' recommendation, but in no case less than six (6) inches in diameter. Subgrade drain inverts shall not be less than the project's static pond elevation or immediate downstream outfalls. Minimum gradient for all subgrade drain pipes shall be 0.15%.

Proper construction techniques and installation in accordance with the approved design is critical for the long-term functionality of the design, especially the subgrade drains therefore, the final approval process shall include a certification from the Design Engineer for the installation of all subgrade drains and any other appurtenances associated with the approved remediation techniques. The

document shall certify that either the design engineer and/or his or her duly authorized representative have witnessed the satisfactory installation of all piping and structures in conjunction with the approved remediation techniques. The Certification shall be accompanied by approved shop drawings, material certifications, daily inspection reports, photographs, and any other associated documentation. Final Plat approval shall be provided only after all documentation has been submitted and the City of Pembroke is satisfied that all improvements have been installed in accordance with the approved design.

Use of road underdrain systems in conjunction with excessive or inordinate cutting (excavation) of road grade is prohibited. Excavation for road construction must be minimized to limit the magnitude of the underdrain system required.

The project's professional geotechnical engineer, who must be licensed in Georgia, shall provide the following design certification for all roads within the development that propose to use subgrade drainage to lower the groundwater level:

| "This is to certi | fy that the underdi | rain design for          | road(s), extending       |
|-------------------|---------------------|--------------------------|--------------------------|
| from station      | to station          | has been designed :      | such that the separation |
| between the bot   | tom of the roadwa   | y base and the artificio | ally induced wet season  |
| groundwater ta    | ble is no less than | two (2) feet for the ent | ire width of pavement."  |

Prior to acceptance of the roadway by the City of Pembroke, the project's professional geotechnical engineer shall certify, in writing, that the underdrain system has been installed in accordance with approved plans and is functioning as designed.

The project engineer must demonstrate through calculations and design considerations that the project's stormwater facilities shall be designed to accommodate expected flow contributed by the underdrain system.

Use of underdrain systems are prohibited in areas designated as groundwater recharge areas by the United States Geological Survey (USGS).

Underdrain systems may be permitted within a zone of influence of jurisdictional wetlands only if it is demonstrated by the applicant, providing competent substantial evidence and sound engineering techniques and data, that the use of an underdrain system will not create negative impacts to wetlands.

No trees are permitted to be planted within the right-of-way or within twenty feet (20') of an underdrain system without the installation of root guards.

A minimum of six-inch (6") pipe is required for all underdrains.

Cleanouts must be installed at the upper end of each subgrade drainage pipe branch, and intermediate riser cleanouts place at intervals of 100 linear feet, and at sharp angles or directional changes greater than 10 degrees. Cleanout risers shall be the small diameter as the subgrade drainage pipe.

Underdrains shall not significantly affect water table conditions on adjacent property. The project's professional geotechnical engineer or hydrologist must demonstrate, utilizing sound and generally acceptable engineering practices and scientifically reliable data, that lowering the seasonal high groundwater table will not adversely impact adjacent properties or surface waters.

The City of Pembroke shall have the authority to require the developer to implement specific measures deemed necessary to avoid or correct any adverse impact of drainage facilities upon adjacent properties.

The planned use of underdrain systems to provide minimum separation between the seasonal high groundwater table and the bottom of roadway base on subdivisions proposed for development utilizing on-site sewage treatment systems (i.e., septic tanks and absorption fields) shall be prohibited except under the following circumstances:

a. Lots within the area proposed for underdrains shall be a minimum of one-half
 a. Lots within the area proposed for underdrains shall be a minimum of one-half

b. The minimum distance between the roadway underdrain and the closest edge of a drain field shall be not less than seventy-five (75) feet.

The use of limestone, recycled crushed concrete, or other alternative base material for roadways using subgrade drainage systems to lower the groundwater table shall be prohibited. Only granite graded aggregate base (GAB) shall be allowed.

As part of the request to utilize subgrade drainage, the Project engineer must provide design considerations demonstrating how the subgrade drainage system will react during a 1.2-inch (85th percentile) storm event. If the roadway subbase becomes inundated during these storm events, the project engineer must provide calculations presenting the anticipated drawdown time required for the system to return to norm, and the subgrade system to return groundwater levels to a minimum of 2-ft below roadway base. This drawdown time shall not exceed 72-hours.

7.1.24. Property Access.

- Permits for all driveways, curb cuts, utilities, and roadside culverts, that are not part of a larger project with approved civil drawings, are required prior to the start of construction.
- (2) Installation of new driveways on curb and gutter roads must conform with the driveway curb cut design criteria as applicable in Section 7.1.25, herein.
- 7.1.25. Curb-Cut Location and Design. Where the lowering or cutting away of curbs, or the placement of driveway pipe and/or asphalt on non-curb sections is required for the purpose of ingress and egress to a Lot or Subdivision, such work shall be subject to the following provisions: The City of Pembroke may require submission and review of an access plan. Access to each parcel in PUD developments and commercial/ industrial properties shall be reviewed during Construction Plan review.

### (1) Residential Curb Cuts:

- (a) No more than two (2) combined entrances and exits shall be allowed for any Lot, having a frontage less than two hundred (200) feet on any one Local Road. Additional entrances or exists for Lots having a frontage in excess of two hundred (200) feet may be permitted at the rate of one (1) entrance exit for each additional one hundred (100) feet of frontage.
- (b) For Local Road intersections (corner Lots), no curb cuts shall be located within twenty-five (25) feet of the intersection of two (2) curb lines or such lines extended, or within fifteen (15) feet of the end of curb radius, whichever is more restrictive. On Collector Roads, no driveway shall be within seventy (70) feet of the intersection of two curb lines or curb lines extended or fiftyfive (55) feet of the intersection of the two (2) right-of-way lines, or within fifty (50) feet of the end of curb radius.
- (c) The distance between any two curb cuts on the same side of the roads shall not be less than ten (10') feet on Local Roads and twenty-five (25') feet on Collector Roads. Said distance shall be measured between the points of tangency of the curb return radii. Where the posted speed limit on any road is 50 MPH or greater, the minimum distance shall be 350 feet or the greatest obtainable distance from existing drives.
- (d) The width of the driveway shall not exceed twenty (20) feet at the right-ofway line and twenty four (24) feet at the edge of the pavement.
- (e) Curb cuts for abandoned sites, or where access is obstructed due to parking lots, buildings, or other permitted structures, the old driveway shall be removed, the sidewalk (if existing) shall be replaced, the curb and gutter shall be replaced, fill dirt backfilled to its natural state and grassed; where it is a

piped drive to a dirt or paved road, said pipe shall be removed, asphalt removed, and the shoulders and ditch regraded to its previous state.

- 7.1.26. Commercial and Multi-Family Curb-Cuts. Commercial and Multi-family curb-cuts shall be installed by the property owner in accordance with the approved plans.
  - (a) No more than two (2) combined entrances and exits shall be allowed for any parcel where the frontage is less than three hundred (300) feet on any one (1) Road. On parcels with less than one hundred-fifty (150) feet of frontage, only one (1) combined entrance and exit shall be allowed (two one-way driveways shall be allowed in lieu of the one two-way). Additional entrances or exits for parcels of property having frontage in excess of three hundred (300) feet may be permitted at the rate of one entrance/exit for each additional one hundred-fifty (150) feet of frontage.
  - (b) For Local Road intersections (corner lots), no curb cuts shall be located within twenty-five (25) feet of the intersection of two (2) curb lines or such lines extended, or within fifteen (15) feet of the intersection of (2) two right-of-way lines or such lines extended, or within fifteen &15) feet of the end of curb radius, whichever is more restrictive. On Collector Roads, no driveway shall be within seventy (70) feet of the intersection of two curb lines or curb line extended or fifty-five (55) feet of the intersection of the two (2) right-of-way lines, or within fifty (50) feet of the end of curb radius.
  - (c) The distance between any two (2) curb cuts on the same side of a Road shall be not less than twenty-five (25) feet on Local Roads and twenty-five (25) feet on Collector Roads. Said distance shall be measured between the points of tangency of the curb return radii.
  - (d) All driveways shall be constructed so as to be at least twelve and one-half (12.5) feet radius for multi-family and at least twenty-five (25) feet radius for commercial development.
  - (e) Maximum width of any driveway shall not exceed thirty-five (35) feet measured at the end of the radii, minimum of twelve and one-half (12.5) feet radius.
  - (f) Curb cuts for abandoned sites, or where access is obstructed due to parking lots, buildings, or other permitted structures, the old driveway shall be removed, then sidewalk (if existing) shall be replaced, the curb and gutter shall be replaced, fill dirt backfilled to its natural state and grassed; where it is a piped driveway to a

dirt or paved road, said pipe shall be removed, asphalt removed and the shoulders and ditch regraded to its previous state.

7.1.27. Traffic Control Plan. An Applicant shall furnish a traffic control plan for all subdivisions involving public or private right-of-ways for review and approval. This requirement applies to all subdivisions which increase the traffic count and or have an impact on traffic routing. Traffic counts shall be determined in conformance with the most current edition of the Institute of Transportation Engineer's Trip Generation Manual (ITE Manual).

The traffic control plan shall indicate all traffic control/warning signs and devices required for the safe and orderly flow of traffic. This plan shall include, but not be limited to, signs such as: NO PARKING, STOP, DEAD END, SPEED LIMIT, SLOW-CHILDREN PLAYING, YIELD PEDESTRIAN CROSSING, ROAD NAME, and pavement striping.

An Applicant shall also be responsible for any changes or additions required in the road from which access to the subdivision is authorized. The City of Pembroke may require additional information and traffic engineering studies to determine impact on the neighboring road system by the proposed subdivision. The improvements to the neighboring road system that may be required include turn lanes, passing lanes, acceleration lanes, deceleration lanes, by-pass lanes, signs, pavement markings, etc.

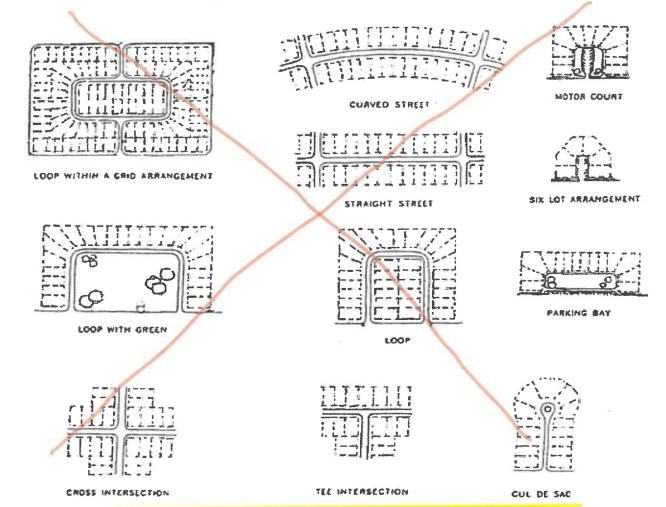
All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition. All traffic control and warning signs shall be of engineering grade highest available reflectorized quality, made on extruded aluminum sign blanks and mounted on galvanized uchannel posts. All incidental hardware for signage shall meet or exceed specifications of the Georgia Department of Transportation.

All traffic control signage and pavement markings shall be in accordance with the latest edition of the MUTCD. All pavement markings and striping shall be thermoplastic with high reflectivity glass beads. Minimum striping width shall be five (5) inches.

- 7.1.28. Utility Location. All new utility installations within the City of Pembroke ROW shall be underground.
- 7.1.629. Tree Requirements Incorporated By Reference. (Amended 8-11-14)

The tree ordinance of the city, is incorporated by reference into the Subdivision Regulations and made a part of this Article as though fully set out herein. A current copy of the tree ordinance shall be maintained on file in the office of the city clerk where it shall be made available for public inspection.

- 7.1.730. Railroads. Railroad rights-of-way where so located as to affect the subdivision of adjoining lands shall be treated as follows:
  - a) In residential districts a buffer strip not less than 25 feet in depth in addition to the normal depth of the lot required in the district shall be provided adjacent to the railroad right-of-way. This strip shall be part of the platted lots and shall be so designated on the plat: "This strip is reserved for the planting of trees and shrubs by the owner. The placement of structures hereon is prohibited."
  - b) In districts zoned for business, commercial or industrial uses, the nearest street extending parallel or approximately parallel to the railroad shall, wherever practicable, be at a sufficient distance there from to ensure suitable depth for commercial or industrial sites.
  - c) All other streets which are parallel to the railroad, when intersecting a street which crosses the railroad grade, shall, to the extent practicable, be at a distance of at least 150 feet from the railroad right-of-way. Such distance shall be determined with due consideration of the minimum distance required for future separation of grades by means of appropriate approach gradients.



7.1.12 Street right-of-way widths. Minimum street right-of-way widths shall be as follows:

|   | <b>Curb and Gutter</b> |                  |       |                     |
|---|------------------------|------------------|-------|---------------------|
| 4   | Pavement Width         | Right-of-Way     | Ditch | <del>Shoulder</del> |
| Local Street                                    | <u>.</u>               | 1                | 1     | <u> </u>            |
| With Parking                                    | <del>23'</del>         | <del>60'</del>   | N/A   | N/A                 |
| •   |                        |                  |       |                     |
| Collector Street                                | <u>.</u>               | 4                | 1     | <u> </u>            |
| 2-Lane with parking                             | <del>27'</del>         | <del>60'</del>   | N/A   | N/A                 |
| 2 lane with left turn lane                      | <del>40'</del>         | <del>60'</del>   | N/A   | N/A                 |
| 2-lane with left turn lane and service<br>lanes | <del>56'</del>         | <mark>80'</mark> | N/A   | N/A                 |
| 4-lane  | <del>54'</del>         | 80 <u>'</u>      | N/A   | N/A                 |
| 4-lane with service lanes                       | <del>78'</del>         | <del>90'</del>   | N/A   | N/A                 |

| Arterial Street  |                          | 1                        | 1            | 1                        |
|--|--------------------------|--------------------------|--------------|--------------------------|
| <del>4-lane</del>  | <del>56'</del>           | <del>80'</del>           | N/A          | N/A                      |
| <del>4-lane with service lane</del>                                    | <del>74'</del>           | <del>100'</del>          | N/A          | N/A                      |
| <del>1 lane with left turn lane</del>                                  | <mark>68'</mark>         | <del>90'</del>           | N/A          | N/A                      |
| <mark>4-lane with left turn lane and service</mark><br><del>lane</del> | <del>86'</del>           | <del>110'</del>          | N/A          | N/A                      |
|  | CHOLUBER                 | -th                      |              |                          |
|  | SHOULDER                 |                          | 1            | I .                      |
|  | <u> </u>                 | )- <mark>-</mark>        | <u> </u>     |                          |
|  | Pavement Width           | Right-of-Way             | <b>Ditch</b> | Shoulder<br>Shoulder     |
| <del>Local</del>   | 1                        | 1                        | 1            | 2                        |
| <del></del>  | ■ E                      |                          |              |                          |
|  | 22                       | 60                       | 13           | N/A                      |
|  | <del>22</del>            | <del>60</del><br>-       | 13           | N/A<br>-                 |
| <del>2-lane</del><br>Gollector or Arterial                             | -<br>-                   | <del>60</del><br>-<br>-  | 13<br>-      | <del>N/A</del><br>+<br>- |
| <del>2-lane</del>  | 22<br>-<br>-<br>-<br>24! | 60<br>-<br>-<br>-<br>80¹ | 13<br>       | N/A<br>-<br>-<br>-<br>6' |
| <del>2-lane</del><br>C <del>ollector or Arterial</del>                 | 1                        | 1                        | 1            |                          |

# **NOTES:**

- 1) Except for local streets, a two-lane collector, pavement widths shown do not provide for on-street parking: service lanes are intended only for loading and unloading of passengers and goods and for disabled vehicles and not for the parking of vehicles.
- 2) Right-of-Way width listed is for only that portion of the typical section between the limits indicated in diagram. Sloping rights of additional R-O-W will be required for cut and fill slopes outside these limits; these future slope areas beyond indicated R-O-W limits should also be kept clear of development until slopes have been constructed.
- 3) R O W widths greater than "minimum" are encouraged because they make for a safer, more aesthetic and more "comfortable" facility and permit future road way widening without disrupting abutting property.
- 7.1.14. Sight Distance for Vertical Curves. Where vertical curves are used, the minimum sight distance shall be as follows:

|                  | <del>Design Speed</del><br>(MPH) | Minimum Curve<br>Radii | Minimum Stopping Sight Distance |
|------------------|----------------------------------|------------------------|---------------------------------|
| <del>Local</del> | <del>30</del>                    | <del>275 Feet</del>    | 200 Feet                        |
| Collector        | <del>35</del>                    | 350 Feet               | 240 Feet                        |
| Arterial         | 40                               | 500 Feet               | 275.1 Feet                      |

- 7.1.15. Horizontal Curves. Where a deflection angle of more than ten (10) degrees occurs in the alignment of a marginal access or minor street or road, a curve of reasonable radius shall be introduced. A curve shall be introduced at any change in direction of a collector, industrial or commercial service street or major thoroughfare. On major thoroughfares the State Department of Transportation or City Engineer shall determine the centerline radius of curvature. On collector, industrial or commercial service streets, the centerline radius of curvature shall not be less than three hundred and fifty (350') feet. On minor streets, the centerline radius of curvature shall not be less than one hundred and fifty (150') feet unless the topography of the land to be subdivided makes this impractical
- 7.1.16 Street Grades. The States Department of Transportation or City Engineers shall establish grades on major thoroughfares. Grades on Collector Streets shall not exceed eight (8) percent unless topographic conditions made this impractical. Grades on minor residential streets shall not exceed fifteen (15) percent, unless topographic conditions make this impractical. All streets shall have a minimum grade of not less than one half (1/2) of one (1) percent.
- 7.2 Easements. All easements shall be shown on the preliminary and final plats and shall conform to the requirements below.
  - 7.2.1. Access All easements for vehicular access to a facility, infrastructure or structure shall be a minimum of 20 feet wide unless otherwise indicated herein. Additional width or areas for turning movements may be required to accommodate the vehicles that will be utilizing the easement for access.
  - 7.2.2. Utility All easements for utilities such as power and cable shall be a maximum of 5 feet wide when adjacent and parallel to a street right-of-way and a maximum of 10 feet wide in other locations.
  - 7.2.3. Water (potable and non-potable) piping All easements for underground water piping and appurtenances shall be centered on the pipe and the width of the easement is based on the depth of the pipe below finished grade as indicated below.
  - a. Depth ≤ 8 ft. 20 ft. easement
  - Depth over 8 ft. 20 ft. plus an additional 2 ft. for every foot deeper than 8 ft. up to a maximum easement of 30 ft.

- 7.2.4. Sewer piping All easements for underground sewer piping and appurtenances shall be centered on the pipe and the width of the easement is based on the depth of the pipe invert below finished grade as indicated below.
- a) Depth < 8 ft. 20 ft. easement
- b) Depth between 8 ft. and ≤ 14 12 ft. 25 ft. easement
- Depth greater than 14 feet = 50 ft. easement
- 7.2.5. Stormwater piping All easements for underground stormwater piping and appurtenances shall be centered on the pipe and the width of the easement is based on the size of the pipe and/or the depth of the pipe invert below finished grade as indicated below.
- a. Pipe with a diameter  $\leq 24$ " and at a depth  $\leq 8$  ft. -20 ft. easement
- b. Pipe with a diameter  $\geq 24$ " or any sized pipe with a depth  $\geq 8$  ft. -25 ft. easement

Easements having a minimum width of thirty (30) feet and located along the side or rear lot lines shall be provided as required for utility lines and underground mains and cables and shall be specified as such on the plat

# ARTICLE VI. REQUIRED IMPROVEMENTS

The following list provides some of the improvements required for subdivision approval within the City of Pembroke.

- Site grading for adequate drainage
- Street signs, traffic control striping and street lights
- Graded streets and paved surfacing
- Water distribution system: domestic and reuse
- Sidewalks, and street trees
- Curb and gutter
- Sanitary Sewage System
- Storm drainage system
- Underground utilities in a dedicated easement
- 6.1 Required Improvements (Amended on 11/10/2008)

A well-designed subdivision means little to a prospective lot buyer until he or she can see actual physical transformation of raw land into lots with all necessary improvements provided. Likewise, a well-designed subdivision is not an asset to the community until the necessary improvements have been installed. In order that prospective lot purchasers may get useable products and new subdivisions may be an asset rather than a liability to the community, the subdivider shall install and/or pay for the improvements required by these regulations necessary to serve his subdivision prior to the approval of the Final Plat.

- 6.1.1. Natural Gas. If gas lines are to be located in a street right-of-way, such lines shall be located outside the portion of the street to be surfaced to prevent having to cut into the paved surface to serve abutting properties.
- 6.1.2. Water Supply. Water mains, valves and fire hydrants shall be installed according to plans and specifications approved by the City Engineer and in accordance with the applicable rules and regulations of the County Health Department and the Georgia Environmental Protection Division.
- 6.1.3. Sanitary Sewerage. Sanitary sewers shall be installed to the plans and specifications approved by and in accordance with the applicable rules and regulations of the County Health Department and the Georgia Environmental Protection Division.
- 6.1.4. Sewage Disposal Systems. If City sewer is not available, prior to the construction of any community sewerage disposal system such as private septic tanks, an oxidation pond or other facility, the location, size, plans and specifications of such a facility shall be approved by and be in accordance with the applicable rules and

regulations of the City of Pembroke along with the County Health Department and the Georgia Environmental Protection Division.

- 6.1.5. Curbs and Gutters and Sidewalks. Curb and gutters are required, and they shall be installed in accordance with plans and specifications approved by the City of Pembroke. Sidewalks shall be installed on both sides of the street and shall meet ADA requirements.
- 6.1.6. Street Grading and Surfacing. Street grading, base preparation and surfacing shall be carried out by the subdivider according to plans and specifications approved by the City of Pembroke. All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition
- 6.1.7. Storm Drainage. An adequate drainage system, including necessary open ditches, pipes, culverts, storm sewers, intersectional drains, drop inlets, bridges and other necessary appurtenances shall be installed by the subdivider according to plans and specifications approved by the City Engineer.

All developments that add greater than 5,000 sf of impervious areas shall adhere to the drainage requirements herein. A single-family house on one lot is exempted from the requirements so long as it is not part of a larger multi house development. Infill construction of a single house that does not subdivide an existing lot is also exempted. In any case where a property is subdivided into greater than one lot, detention or other best management practices must be provided to ensure that the post-developed storm water runoff does not exceed the predeveloped condition.

- Developments that exceed 5,000 sf of impervious area shall adhere to the "Georgia Stormwater Management Manual Volume 2" minimum standard 1-4 and 6-11.
- Pipes and Inlets shall be designed to convey the 25-year storm. Inlet capacity shall be designed to accommodate the 25-year storm having a gutter spread of not greater than seven feet.
- The predeveloped curve number shall be based on existing conditions, impervious area, and soil characteristics.
- 4) All infrastructure must be able to safely pass the 100-year storm event.
- 5) Developments that impact flood zones shall provide compensatory cuts and fill or a no rise certification. In areas that impact Flood Zone A with no elevation, a study must be performed and provided such that the base flood elevation is available. A freeboard of 1' from BFE to finished floor must be provided on all

# structures adjacent to or within a flood zone area.

- 6) No fill shall be allowed within the floodway.
- 6.1.8. Street Name Signs. Street Name Signs shall be installed at all intersections within a subdivision. The location and design shall be approved by the Planning Commission and City Council. All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition
- 6.1.9. <u>Topsoil</u>. Topsoil shall not be removed from residential lots or used as spoil, but shall be redistributed so as to provide at least six (6) inches of cover on the lots and at least four (4) inches of cover between sidewalks and curbs, and shall be stabilized by seeding or planting.
- 6.1.10 Sod Amended11/11/2008

Sod will be planted in the entirety of the front yard of every lot. The only area of exception of sod will be for landscaping purposes or building structures such as driveways, sidewalks, or light poles. The sod will extend from the rear edge of the home to the sidewalk or street curb. Sod shall be of a grass suitable for the City of Pembroke, Georgia, and will be approved by the City of Pembroke. Only grasses that will survive in Pembroke's climate will be used. The sod shall be reasonably free of weeds, pests, and disease. Seed will be used to stabilize the remaining parcel of land to the side and rear of the home, which will be approved by the City of Pembroke. Said seed shall be of a type or mixture that will produce adequate coverage within ninety (90) days from sowing. Irrigation of sod must adhere to the guidelines in the City of Pembroke Outdoor Watering Ordinance.

6.1.11 Non-Potable Reuse Line (NPRL) – Amended 01/09 - a non-potable reuse water main shall be installed in a subdivision that is or will be located within a one mile radius of an existing or proposed reuse water distribution main. The system shall include reuse water mains, valves, fittings, hydrants and shall be installed in accordance with the plans and specifications approved by the City of Pembroke. The system shall be designed and installed in accordance with the City of Pembroke Non-Potable Water Reuse Design Guide.

Non-Potable Reuse Water Lines Design and Installation Requirements

1) The design of the proposed NPRL system shall include a hydraulic model that insures sufficient capacity and pressure at each point of delivery.

# ARTICLE VII. DESIGN STANDARDS

The City of Pembroke has adopted the Georgia Department of Transportation (GDOT) Design Policy Manual and latest addendums thereto as the basis for the design, review and construction of transportation facilities in the City of Pembroke. In addition, all other current design manuals and/or policies issued by GDOT shall be utilized as required for specific transportation elements not addressed in the GDOT Design Manual. Similarly, all construction related activities are governed by the GDOT Construction Manual. The purpose of this addendum is to augment these policies and guidelines set out in these documents with specific criteria related to the design and construction of transportation facilities within the City of Pembroke. All land development taking place in the City of Pembroke, at a minimum, shall reference and adhere to the design guidelines and policies for guidance and design criteria, of the following documents and latest addenda thereof:

- City of Pembroke Ordinances
- GDOT Design Manual
- GDOT Construction Manual
- FHWA Manual on Uniform Traffic Control Devices
- Highway Capacity Manual (HCM)
- ITE Trip Generation Manual
- AASHTO Policy on Geometric Design of Highways and Streets

The following design standards shall be considered minimum requirements in the platting of all subdivisions:

# 7.1 Streets

# 7.1.1. Classification

New streets shall typically be classified by the number of vehicle trips per day measured as average annual daily traffic (AADT) as follows:

- Arterials greater than 2000 and/or as designated by the City of Pembroke.
   Arterials include freeways, multilane highways, and other important roadways that supplement the Interstate System. They connect, as directly as practicable, the Nation's principal urbanized areas, cities, and industrial centers. Land access is limited. Posted speed limits on arterials usually range between 50 and 70 miles per hour.
- Collectors 1000 to 2000 and/or as designated by the City of Pembroke.

Collectors are major and minor roads that connect local roads and streets with arterials.

Collectors provide less mobility than arterials at lower speeds and for shorter distances. They balance mobility with land access. The posted speed limit on collectors is usually between 35 and 55 miles per hour.

Local – less than 1000 and/or as designated by the City of Pembroke.
 Local roads provide limited mobility and are the primary access to residential areas, businesses, farms, and other local areas. Local roads, with posted speed limits usually between 20 and 45 miles per hour, and are the majority of roads in the U.S.

In addition to the above, the City of Pembroke may also take into account and evaluate other elements that may affect the street classification such as the street design, surrounding roadway networks and connections thereto, adjacent land uses serviced by the road, etc.

- 7.1.2 <u>Continuation of Adjoining Street System</u>. The proposed street layout shall be coordinated with the street system of the surrounding area. Where possible, existing major streets shall be extended.
- 7.1.3. Access to Adjacent Properties. Where it is desirable to provide for street access to adjoining property, proposed streets shall be extended by dedication to the boundary of such property and a temporary turn-around shall be provided.
- 7.1.4. Street Names. Proposed streets, which are obviously in alignment with other existing and named streets, shall bear the assigned names of the existing streets. (It shall be unlawful for any person in laying out any new street or road to name such street or road on any plat, by marking, or in any deed or instrument, without first getting approval of the Planning Commission, the 911 Director and the City Council.) In no case shall the name of the proposed streets duplicate or be phonetically similar to existing street names irrespective of the use of suffix, street, avenue, boulevard, drive, place, court, etc.
- 7.1.5. Minor Streets. Minor streets shall be so laid out that their use by through traffic will be discouraged.

# 7.1.6. Local Road Design

Minimum centerline pavement grade with curb and gutter shall be 0.50% Maximum centerline pavement grade shall be 4.0%.

Minimum roadway cross slope shall be 2.00%

Maximum Road design speed - thirty (30) MPH

Minimum sight distance - two hundred (200) feet

Minimum centerline radius of curve - one hundred (100) feet

- 7.1.7. <u>Pavement Sections.</u> Minimum roadway section design shall be based on road classification as follows, unless the Geotechnical Report recommends a more substantial design:
  - Arterial roads shall consist of eight (8) inches Graded Aggregate Base, two
     (2) inches 19 mm Superpave, and two (2) inches 12.5 mm Superpave.
  - Collector roads shall consist of eight (8) inches Graded Aggregate Base, and two (2) inches 12.5 mm Superpave.
  - Local roads shall consist of six (6) inches Graded Aggregate Base, and two (2) inches 9.5 mm Superpave.

The minimum required separation from the pavement base material and seasonal high-water table shall be two feet. Any deviations from this standard shall require remediation via the installation of underdrain in accordance with Section 7.1.23.

7.1.8. Roadway Sub-base. Roadway sub-base shall be a minimum of twenty-four (24) inches of granular material compacted to ninety-eight percent (98%) modified proctor density. Satisfactory laboratory and testing reports for all sub-base materials shall be submitted for review and approval prior to proof rolling. Testing locations shall occur at a rate of no greater than every 300 feet along the roadway centerline, alternating lanes with each test location. All roads shall be proof rolled and witnessed by a representative of the City of Pembroke prior to the rock base material being placed. All unsuitable material shall be removed and replaced with acceptable material and retested.

The roadway base shall be compacted to ninety-eight percent (98%) modified proctor density. Satisfactory laboratory and testing reports for all base materials shall be submitted for review and approval prior to proof rolling. Testing locations shall occur at a rate of no greater than every 300 feet along the roadway centerline, alternating lanes with each test location. All roads shall be proof rolled and witnessed by a representative of the City of Pembroke prior to the installation of

asphalt. All unsuitable material shall be removed and replaced with acceptable material and retested.

7.1.9. <u>Curb and Gutter.</u> Curb and gutter shall be constructed with Portland Cement Concrete having a twenty-eight (28) day strength of three thousand five hundred (3,500) psi. Slip form or machine curb and gutter shall have expansion material minimum of one-half (½) inch thick with a maximum spacing of one hundred (100) feet and abut a solid structure where one (1) day's pour abuts a previous day's pour.

Construction joints shall be sawed or tooled at a maximum spacing of ten (10) linear feet.

Residential curb and gutter shall have a minimum gutter thickness of six (6) inches.

Industrial/commercial curb and gutter shall have a minimum gutter thickness of eight (8) inches and shall be thicker as required by its location, soil conditions and traffic load.

Where curb and gutter is a part of the Road design, the maximum linear gutter line distance stormwater can traverse shall be three hundred (300) feet.

- 7.1.10. <u>Sight Distance.</u> No fence, wall, tree, terrace, building, sign, shrubbery, hedge, other planting or structure or object capable of obstructing driver vision will be allowed at intersections.
- 7.1.11. Clear Right-of-Way. Except as otherwise provided herein, it shall be required that the right-of-way be cleared, all surface improvements removed from the right-of-way, and all sub-surface improvements parallel to the pavement be re-located from under the pavement. All areas disturbed during construction and shoulders and slopes shall be seeded to obtain permanent vegetation for controlling erosion.
- 7.1.12. Roadside Parking. All Roads shall be considered to provide Road-side parking unless plans clearly state that Road-side parking will be prohibited. Where Road-side parking is prohibited, the Applicant shall provide for "No Parking" signage as part of the design. Where Road-side parking is provided, a nine (9) foot wide payed surface will be provided for each parking lane.

- 7.1.13. Horizontal Curves. On Collector Roads, the minimum centerline radius of curvature shall not be less than three hundred fifty (350) feet. On Local Roads, the minimum centerline radius of curvature shall not be less than one hundred (100) feet.
- 7.1.14. <u>Vertical Curves</u>. All points of vertical inflection along the roadway centerline with a total grade break of 1.5% or greater shall have a vertical curve inserted.
- 7.1.15. Reserved Strips Prohibited. A Road intended to be dedicated to the City shall not be located so that a narrow buffer strip is maintained between the right-of-way of such Road and adjacent property in such a manner as to deny access to another adjacent property.
- 7.1.16. Access to Arterial Roads. No residential Road, driveway, or other access point shall enter an Arterial Road at a point nearer than five hundred (500') feet from an existing highway, Road, driveway, or other access point; except, where an Existing Lot of Record would be rendered unusable by the strict application of this provision.
- 7.1.17. Private access easements. Private access easements may be approved by the Planning Commission for the subdivision and creation of only one lot fronting on a public road. The private access easement providing access to one structure or an unimproved road need not be paved or have curb and gutter. The proposed use of an existing private access easement as the access to further subdivision and lot creation will require a dedicated right-of-way with a minimum of sixty (60) feet.
- 7.1.18 Right Angle Intersections. Street intersections shall be as nearly at right angles as practicable.
- 7.1.19. <u>Cul-de-sac</u>. Maximum allowable length not to extend more than twelve hundred (1200) feet in length and provided with a turn-around having a roadway diameter of at least one hundred (100) feet and a right-of-way diameter of at least one hundred and ten (110) feet. Temporary dead-end streets shall be provided with a turn-around having a thirty (30) foot-radius.
- 7.1.20. Alleys. Service alleys or drives may be required in multiple dwelling, commercial, and industrial developments and shall have a minimum surface treatment width of fifteen (15) feet, but shall not be provided in one (1) and two (2) family residential developments unless the subdivider provides evidence satisfactory to the Planning Commission of the need for alleys.

- 7.1.21. <u>Residential Subdivision</u>. Except as otherwise provided herein, Roads within Subdivisions shall have a standard minimum Road width of twenty-seven (27) feet back-to-back with curb and gutter.
  - When Roadside swales or ditches are permitted, the minimum Road width shall be twenty-four (24) feet wide with a six and one-half (6.5) foot shoulder or greater. Road width at fire hydrants shall conform to fire code requirements if greater than minimum width required above. Where roadside parking is required, the paved Road width will be increased nine (9) feet for each parking lane.
- 7.1.22. Phased Construction. All roads classified as collectors and arterials shall be constructed in a two (2) phased approach which requires the installation of the two (2) inch surface course to occur no earlier than at least seventy-five percent (75%) of the lots accessing the road have been constructed, or three (3) years from the time of acceptance of the roadway base section, whichever comes first. Local roads may be constructed in their entirety.
- 7.1.23. Underdrains. In cases where the 2' seasonal high ground water separation to the bottom of the road base cannot be met, remediation technique(s) including, but not limited to, subgrade drains, may be submitted for consideration. The written request shall be accompanied by a Geotechnical Report for the problematic areas of the site along with a layout plan of the proposed development which indicates the boring locations as referenced in the report. The Geotechnical Report shall include recommendations for groundwater management on site based on specific site soil conditions and characteristics. All areas which do not meet the 2' seasonal high separation requirement shall be clearly identified on the plan along with the depths to seasonal high groundwater from existing grade. The Engineer of Record shall provide the remediation technique(s) including, but not limited to, subgrade drains, to be considered to prevent the roadway subbase from being permanently inundated with groundwater. The Engineer shall also provide all site-specific supporting soil data, hydrological analysis, and engineering design necessary to justify the request.
  - Construction plans shall include all necessary details associated with the remediation technique(s). Should subgrade drains be incorporated into the design, the pipe diameters shall be as required by the Geotechnical Engineers' recommendation, but in no case less than six (6) inches in diameter. Subgrade drain inverts shall not be less than the project's static pond elevation or immediate downstream outfalls. Minimum gradient for all subgrade drain pipes shall be 0.15%.

| design is critical for the long-term functionality of the design, especially the subgrade drains therefore, the final approval process shall include a certification from the Design Engineer for the installation of all subgrade drains and any other appurtenances associated with the approved remediation techniques. The document shall certify that either the design engineer and/or his or her duly authorized representative have witnessed the satisfactory installation of all piping and structures in conjunction with the approved remediation techniques. The Certification shall be accompanied by approved shop drawings, material certifications, daily inspection reports, photographs, and any other associated documentation. Final Plat approval shall be provided only after all documentation has been submitted and the City of Pembroke is satisfied that all improvements have been installed in accordance with the approved design. |
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| Use of road underdrain systems in conjunction with excessive or inordinate cutting (excavation) of road grade is prohibited. Excavation for road construction must be minimized to limit the magnitude of the underdrain system required.   |
| The project's professional geotechnical engineer, who must be licensed in Georgia, shall provide the following design certification for all roads within the development that propose to use subgrade drainage to lower the groundwater level:  |
| "This is to certify that the underdrain design for road(s), extending from station to station, has been designed such that the separation between the bottom of the roadway base and the artificially induced wet season groundwater table is no less than two (2) feet for the entire width of pavement."  |
| Prior to acceptance of the roadway by the City of Pembroke, the project's professional geotechnical engineer shall certify, in writing, that the underdrain system has been installed in accordance with approved plans and is functioning as designed.   |
| The project engineer must demonstrate through calculations and design considerations that the project's stormwater facilities shall be designed to accommodate expected flow contributed by the underdrain system.  |
| Use of underdrain systems are prohibited in areas designated as groundwater recharge areas by the United States Geological Survey (USGS).   |
|   |

Underdrain systems may be permitted within a zone of influence of jurisdictional wetlands only if it is demonstrated by the applicant, providing competent substantial evidence and sound engineering techniques and data, that the use of an underdrain system will not create negative impacts to wetlands. No trees are permitted to be planted within the right-of-way or within twenty feet (20') of an underdrain system without the installation of root guards. A minimum of six-inch (6") pipe is required for all underdrains. Cleanouts must be installed at the upper end of each subgrade drainage pipe branch, and intermediate riser cleanouts place at intervals of 100 linear feet, and at sharp angles or directional changes greater than 10 degrees. Cleanout risers shall be the small diameter as the subgrade drainage pipe. Underdrains shall not significantly affect water table conditions on adjacent property. The project's professional geotechnical engineer or hydrologist must demonstrate, utilizing sound and generally acceptable engineering practices and scientifically reliable data, that lowering the seasonal high groundwater table will not adversely impact adjacent properties or surface waters. The City of Pembroke shall have the authority to require the developer to implement specific measures deemed necessary to avoid or correct any adverse impact of drainage facilities upon adjacent properties. The planned use of underdrain systems to provide minimum separation between the seasonal high groundwater table and the bottom of roadway base on subdivisions proposed for development utilizing on-site sewage treatment systems (i.e., septic tanks and absorption fields) shall be prohibited except under the following circumstances: a. Lots within the area proposed for underdrains shall be a minimum of one-half (1/2) acre. b. The minimum distance between the roadway underdrain and the closest edge of a drain field shall be not less than seventy-five (75) feet. The use of limestone, recycled crushed concrete, or other alternative base material for roadways using subgrade drainage systems to lower the groundwater table shall be prohibited. Only granite graded aggregate base (GAB) shall be allowed.

As part of the request to utilize subgrade drainage, the Project engineer must provide design considerations demonstrating how the subgrade drainage system will react during a 1.2-inch (85th percentile) storm event. If the roadway subbase becomes inundated during these storm events, the project engineer must provide calculations presenting the anticipated drawdown time required for the system to return to norm, and the subgrade system to return groundwater levels to a minimum of 2-ft below roadway base. This drawdown time shall not exceed 72-hours.

# 7.1.24. Property Access.

- (1) Permits for all driveways, curb cuts, utilities, and roadside culverts, that are not part of a larger project with approved civil drawings, are required prior to the start of construction.
- (2) Installation of new driveways on curb and gutter roads must conform with the driveway curb cut design criteria as applicable in Section 7.1.25, herein.
- 7.1.25. <u>Curb-Cut Location and Design.</u> Where the lowering or cutting away of curbs, or the placement of driveway pipe and/or asphalt on non-curb sections is required for the purpose of ingress and egress to a Lot or Subdivision, such work shall be subject to the following provisions: The City of Pembroke may require submission and review of an access plan. Access to each parcel in PUD developments and commercial/ industrial properties shall be reviewed during Construction Plan review.

# (1) Residential Curb Cuts:

- (a) No more than two (2) combined entrances and exits shall be allowed for any Lot, having a frontage less than two hundred (200) feet on any one Local Road. Additional entrances or exists for Lots having a frontage in excess of two hundred (200) feet may be permitted at the rate of one (1) entrance/exit for each additional one hundred (100) feet of frontage.
- (b) For Local Road intersections (corner Lots), no curb cuts shall be located within twenty-five (25) feet of the intersection of two (2) curb lines or such lines extended, or within fifteen (15) feet of the end of curb radius, whichever is more restrictive. On Collector Roads, no driveway shall be within seventy (70) feet of the intersection of two curb lines or curb lines extended or fiftyfive (55) feet of the intersection of the two (2) right-of-way lines, or within fifty (50) feet of the end of curb radius.
- (c) The distance between any two curb cuts on the same side of the roads shall not be less than ten (10') feet on Local Roads and twenty-five (25') feet on

Collector Roads. Said distance shall be measured between the points of tangency of the curb return radii. Where the posted speed limit on any road is 50 MPH or greater, the minimum distance shall be 350 feet or the greatest obtainable distance from existing drives.

- (d) The width of the driveway shall not exceed twenty (20) feet at the right-ofway line and twenty four (24) feet at the edge of the pavement.
- (e) Curb cuts for abandoned sites, or where access is obstructed due to parking lots, buildings, or other permitted structures, the old driveway shall be removed, the sidewalk (if existing) shall be replaced, the curb and gutter shall be replaced, fill dirt backfilled to its natural state and grassed; where it is a piped drive to a dirt or paved road, said pipe shall be removed, asphalt removed, and the shoulders and ditch regraded to its previous state;

- 7.1.26. Commercial and Multi-Family Curb-Cuts. Commercial and Multi-family curb cuts shall be installed by the property owner in accordance with the approved plans.
  - (a) No more than two (2) combined entrances and exits shall be allowed for any parcel where the frontage is less than three hundred (300) feet on any one (1) Road. On parcels with less than one hundred-fifty (150) feet of frontage, only one (1) combined entrance and exit shall be allowed (two one-way driveways shall be allowed in lieu of the one two-way). Additional entrances or exits for parcels of property having frontage in excess of three hundred (300) feet may be permitted at the rate of one entrance/exit for each additional one hundred-fifty (150) feet of frontage.
  - (b) For Local Road intersections (corner lots), no curb cuts shall be located within twenty-five (25) feet of the intersection of two (2) curb lines or such lines extended, or within fifteen (15) feet of the intersection of (2) two right-of-way lines or such lines extended, or within fifteen &15) feet of the end of curb radius, whichever is more restrictive. On Collector Roads, no driveway shall be within seventy (70) feet of the intersection of two curb lines or curb line extended or fifty-five (55) feet of the intersection of the two (2) right-of-way lines, or within fifty (50) feet of the end of curb radius.

- (e) The distance between any two (2) curb cuts on the same side of a Road shall be not less than twenty-five (25) feet on Local Roads and twenty-five (25) feet on Collector Roads. Said distance shall be measured between the points of tangency of the curb return radii.
- (d) All driveways shall be constructed so as to be at least twelve and one-half (12.5) feet radius for multi-family and at least twenty-five (25) feet radius for commercial development.
- (e) Maximum width of any driveway shall not exceed thirty-five (35) feet measured at the end of the radii, minimum of twelve and one-half (12.5) feet radius.
- (f) Curb cuts for abandoned sites, or where access is obstructed due to parking lots, buildings, or other permitted structures, the old driveway shall be removed, then sidewalk (if existing) shall be replaced, the curb and gutter shall be replaced, fill dirt backfilled to its natural state and grassed; where it is a piped driveway to a dirt or paved road, said pipe shall be removed, asphalt removed and the shoulders and ditch regraded to its previous state.
- 7.1.27. <u>Traffic Control Plan.</u> An Applicant shall furnish a traffic control plan for all subdivisions involving public or private right-of-ways for review and approval. This requirement applies to all subdivisions which increase the traffic count and/or have an impact on traffic routing. Traffic counts shall be determined in conformance with the most current edition of the Institute of Transportation Engineer's Trip Generation Manual (ITE Manual).

The traffic control plan shall indicate all traffic control/warning signs and devices required for the safe and orderly flow of traffic. This plan shall include, but not be limited to, signs such as: NO PARKING, STOP, DEAD END, SPEED LIMIT, SLOW-CHILDREN PLAYING, YIELD PEDESTRIAN CROSSING, ROAD NAME, and pavement striping.

An Applicant shall also be responsible for any changes or additions required in the road from which access to the subdivision is authorized. The City of Pembroke may require additional information and traffic engineering studies to determine impact on the neighboring road system by the proposed subdivision. The improvements to the neighboring road system that may be required include turn lanes, passing lanes, acceleration lanes, deceleration lanes, by-pass lanes, signs, pavement markings, etc.

All traffic control signs, devices, and striping shall conform to the Manual for Uniform Traffic Control Devices (MUTCD) latest edition. All traffic control and warning signs shall be of engineering grade highest available reflectorized quality, made on extruded aluminum sign blanks and mounted on galvanized uchannel posts. All incidental hardware for signage shall meet or exceed specifications of the Georgia Department of Transportation.

All traffic control signage and pavement markings shall be in accordance with the latest edition of the MUTCD. All pavement markings and striping shall be thermoplastic with high reflectivity glass beads. Minimum striping width shall be five (5) inches.

- 7.1.28. Utility Location. All new utility installations within the City of Pembroke ROW shall be underground.
- 7.1.29. Tree Requirements Incorporated By Reference. (Amended 8-11-14)
  The tree ordinance of the city, is incorporated by reference into the Subdivision Regulations and made a part of this Article as though fully set out herein. A current copy of the tree ordinance shall be maintained on file in the office of the city clerk where it shall be made available for public inspection.
- 7.1.30. <u>Railroads</u>. Railroad rights-of-way where so located as to affect the subdivision of adjoining lands shall be treated as follows:
  - a) In residential districts a buffer strip not less than 25 feet in depth in addition to the normal depth of the lot required in the district shall be provided adjacent to the railroad right-of-way. This strip shall be part of the platted lots and shall be so designated on the plat: "This strip is reserved for the planting of trees and shrubs by the owner. The placement of structures hereon is prohibited."
  - b) In districts zoned for business, commercial or industrial uses, the nearest street extending parallel or approximately parallel to the railroad shall, wherever practicable, be at a sufficient distance there from to ensure suitable depth for commercial or industrial sites.
  - c) All other streets which are parallel to the railroad, when intersecting a street which crosses the railroad grade, shall, to the extent practicable, be at a distance of at least 150 feet from the railroad right-of-way. Such distance shall be determined with due consideration of the minimum distance required for future separation of grades by means of appropriate approach gradients.

- 7.2 <u>Easements.</u> All easements shall be shown on the preliminary and final plats and shall conform to the requirements below.
  - 7.2.1. Access All easements for vehicular access to a facility, infrastructure or structure shall be a minimum of 20 feet wide unless otherwise indicated herein. Additional width or areas for turning movements may be required to accommodate the vehicles that will be utilizing the easement for access.
  - 7.2.2. Utility All easements for utilities such as power and cable shall be a maximum of 5 feet wide when adjacent and parallel to a street right-ofway and a maximum of 10 feet wide in other locations.
  - 7.2.3. Water (potable and non-potable) piping All easements for underground water piping and appurtenances shall be centered on the pipe and the width of the easement is based on the depth of the pipe below finished grade as indicated below.
    - a. Depth  $\leq 8$  ft. -20 ft. easement
    - b. Depth over 8 ft. 20 ft. plus an additional 2 ft. for every foot deeper than 8 ft. up to a maximum easement of 30 ft.
  - 7.2.4. Sewer piping All easements for underground sewer piping and appurtenances shall be centered on the pipe and the width of the easement is based on the depth of the pipe invert below finished grade as indicated below.
    - a) Depth < 8 ft. 20 ft. easement
    - b) Depth between 8 ft. and  $\leq 14$  12 ft. -25 ft. easement
    - c) Depth greater than 14 feet 50 ft. easement
  - 7.2.5. Stormwater piping All easements for underground stormwater piping and appurtenances shall be centered on the pipe and the width of the easement is based on the size of the pipe and/or the depth of the pipe invert below finished grade as indicated below.
    - a. Pipe with a diameter  $\leq 24$ " and at a depth  $\leq 8$  ft. -20 ft. easement