

Chapter 7. RECREATIONAL OPEN SPACE

7.1 Purpose and Intent

Open spaces are characterized by the fact that the outdoor space has some recreational, ecological and/or aesthetic value. Open space generally includes, but is not limited to: outdoor areas not covered by buildings, structures, parking lots, “dry” stormwater detention facilities, public rights-of-way or required setbacks. Specifically, recreational open space is distinct from those areas that are ecologically significant and must be protected in their pristine state in that it is designed to supplement the human habitat through its use and enjoyment. While Chapter 6 addresses the requirements related to areas of ecological value, the intent of these requirements is to allow for the active or passive usage of centrally located land as neighborhood recreational open spaces available to the public, and not to permit the use of leftover or otherwise unusable land to fulfill the requirements of this Chapter.

7.2 General Provisions.

- A. **Consistency with Parks and Recreation Master Plan:** Areas noted on any adopted Parks and Recreation Master Plan as open space shall be incorporated into developments where applicable.
- B. **Location and Improvement:** Recreational open space shall be planned and improved to provide focal points for a neighborhood and are centrally located so that they are accessible and usable by persons living within a half (1/2) mile walking distance. A central square or green, for example, may comprise a majority of the area required for dedication. Improved shall mean cleared of underbrush and debris and containing active or passive enhancements as described in Section 7.5A
- C. **Preservation of Natural Aesthetic Features:** Significant stands of trees, stream bed areas, and other valuable natural aesthetic features shall be preserved within the recreational open space areas where practical.
- D. **Placement of Amenities:** Recreational open space amenities such as playground equipment, statues, and fountains should be located toward the interior of squares and parks, sufficiently away from the public right-of-way, to provide for the adequate safety of users.
- E. **Ownership:** Dedicated recreational open space may be held in private ownership, provided that the necessary easements are recorded with the Wake County Register of Deeds in a form approved by the Town. Otherwise, dedicated recreational open space shall be separately deeded to a homeowner’s association, a non-profit land trust or conservancy, Wake County, or the Town of Knightdale (upon approval by the Town Council).

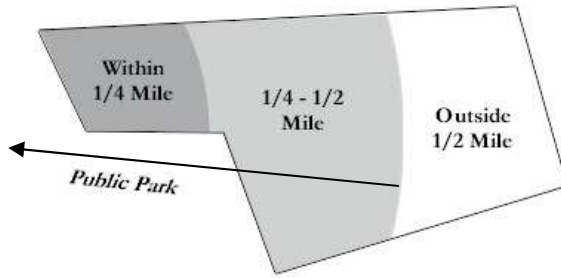
7.3 Recreational Open Space Dedication

All developments with more than eight (8) residential units shall be required to dedicate recreational open space. The amount of recreational open space required for dedication shall be determined using the following Recreational Open Space Dedication Matrix (“*Dedication Matrix*”). The Dedication Matrix is based upon similar dedication requirements throughout the State of North Carolina with a few enhancements:

- A. Proximity to Improved Publicly Dedicated Recreational Open Space Credits:**
The Dedication Matrix accounts for the availability of accessible recreational open space in close proximity to the proposed development. The portion of a development within a half (1/2) mile walk (along sidewalks or other pedestrian access within a public right-of-way or public easement) to existing publicly dedicated recreational open space (parks, greenways, etc.) are granted a reduction in required recreational open space dedication of 25%. Similarly, the portion of a developments that is adjacent (within a quarter (1/4) mile) to existing publicly dedicated recreational open space are granted a 50% reduction in required dedication. Publicly dedicated recreational open space means that the property has been dedicated to the Town of Knightdale or other government agency, is actively maintained through a maintenance agreement or acceptance for maintenance by the government agency, and has been improved as provided for in Section 7.2(B).
- B. Density (Dwelling Units/Acre):** To encourage the preservation of proportional acres of land in higher density developments, the matrix provides for an increasing requirement in the dedication of recreational open space as gross density also increases.
- C. Number of Bedrooms:** In addition to density, the Dedication Matrix was also designed to base recreational open space requirements on the estimated number of bedrooms in a given development rather than the more typical dedication based upon the number of dwelling units, since bedroom counts better represent the actual number of residents for whom an appropriate amount of recreational open space is needed. For the purposes of good faith estimation, all single family developments will dedicate open space at a rate of 3.5 bedrooms per unit unless otherwise stipulated. In the absence of known building specifications, attached homes and apartments will dedicate open space at a rate of 2.5 bedrooms per unit.

RECREATIONAL OPEN SPACE DEDICATION MATRIX					
	Gross Dwelling Units per Acre (7.3B)				Proximity Zone (7.3A)
	0-2	2-6	6-10	+10	
Estimated Number of Bedrooms (7.3C) X	500	520	550	580	Outside 1/2 mile
	375	390	413	435	Between 1/4 and 1/2 mile
	250	260	275	290	Within 1/4 mile
<i>All figures are in square feet</i>					
<i>How to use this matrix:</i>					
1. Estimate average density for each zone of proximity within the development.					
2. Estimate the total number of bedrooms within each zone of proximity.					
3. Multiply the total number of bedrooms within each zone of proximity times the dedication rate (in square feet) for the corresponding average density for each zone of proximity.					
4. If applicable, add the preceding results for each zone of proximity together to determine the total dedication required.					

EXAMPLE:



A developer wants to subdivide a 50 acre tract of land into 120 lots for 120 single-family dwellings. The good faith estimated number of bedrooms per dwelling is 3.5. 8 acres are within 1/4 mile of existing publicly dedicated open space, while another 24 acres are between 1/4 and 1/2 mile. (*Assumption: In the absence of specific information, dwelling units may be equally distributed across entire acreage.*)

How much recreational open space is required for dedication?

Density = 120 units / 50 acres or 2.4 gross dwelling units/acre (*applies to whole site*)

Bedroom Estimate:

Total bedrooms = 120 units * 3.5 bedroom/unit or 420 bedrooms

Total bedrooms within 1/4 mile = 420 bedrooms * (8/50 acres) or 68 bedrooms

Total bedrooms 1/4 - 1/2 mile = 420 bedrooms * (24/50 acres) or 202 bedrooms

Total bedrooms outside 1/2 mile = 420 bedrooms * (18/50 acres) or 152 bedrooms

Open Space Calculations (*square foot multipliers come from chart, 2.4 is between 2 – 6*):

Within 1/4 mile = 68 bedrooms * 260 square feet or 17,680 sf

1/4 - 1/2 mile = 202 bedrooms * 390 square feet or 78,780 sf

Outside 1/2 mile = 152 bedrooms * 520 square feet or 79,040 sf

Total Recreational Open Space = 17,680 sf + 78,780 sf + 79,040 sf or 175,500 square feet (*also 4.03 acres or 8% of the total area*)

D. Variation Permitted from Final Build-Out: Because the open space dedication requirements are based upon preliminary estimations of bedroom units in a given development, changing market conditions and final build-out of a project may yield a different bedroom count. In order to accommodate for variations, this code will allow the number of actual bedrooms to exceed the estimated number of bedrooms as follows:

- Less Than 10% = No further dedication required
- 10% - 25% = Payment in Lieu required for additional bedrooms
- More than 25% = Additional recreational open space dedication required

7.4 Payment in Lieu of Recreational Open Space Dedication

If recreational open space within a development is physically impractical due to unusual topographic conditions, then the Town Council may, at its discretion, accept either an equitable amount of land in another location or a fee paid to the Town in lieu of dedication. A combination of dedication and payments in lieu of dedication are permitted.

Payments in lieu of dedication shall be approved as part of the Development Plan. All payments made in lieu of dedication shall be made in accordance with the Town's Fee Schedule at the time of Final Plat approval. Failure to submit the required fee along with other required Final Plat materials will delay approval of the Final Plat until payment is rendered. All funds received for payment in lieu of dedication shall be used for the acquisition, development, or redevelopment of public open space within the Town.

7.5 Recreational Open Space Criteria

In addition to meeting the general requirements of Section 7.2, land proposed for improved recreational open space shall meet the following criteria:

A. Type

1. **Active:** At least one half (½) of the recreational open space shall be provided for active recreation purposes such as playgrounds, tennis courts, ball fields, volleyball courts, etc., and improved to accepted national or local standards for size and associated amenities. Areas including ponds, wetlands, floodplains, or easements for public utility transmission lines shall not receive credit in the computation for the amount of active recreational open space required. In addition, 10-foot multi-use paths within greenway easements required by *Appendix C: Town of Knightdale Bike Route and Greenway Plan*, while passive in nature, shall be credited as active recreational open space for the area of the public greenway easement (Section 7.5E).
2. **Passive:** Up to one half (½) of the recreational open space shall be provided for passive recreation purposes such as walking, jogging, cycling, relaxation, etc. Preservation of natural resources or cultural resources such as steep slopes, rock outcroppings, mature woodlands or water resources may also be counted provided there is some method approved by the TRC for public enjoyment and appreciation of such resources.

B. Topography

1. **Active:** The average slope of land for active recreation shall not exceed seven and one-half percent (7½ %).
2. **Passive:** The average slope of land for passive recreation shall not exceed the average slope of the entire subdivision or development, and in no case shall the average slope exceed 15% unless otherwise approved by the TRC for the preservation of natural resources.

C. Shape

1. **Active:** The shape of land for active recreation shall be sufficiently square or rectangular to be suitable for, but not limited to, playgrounds, courts, or playfields.

2. **Passive:** The shape of land for passive recreation shall be sufficient to encompass the walking or jogging path, natural or cultural resource or other proposed area to be enjoyed.
- D. **Unity:** Land provided for recreational open space shall form a single parcel except where the TRC determines that two (2) or more parcels are more suitable to the accessibility needs (Section 5.7E) of a particular subdivision. The TRC may require that such parcels be connected by a path contained within a strip of recreation area which shall have a minimum width of 30 feet. A maximum width of 50 feet may be required where slope, parallel utility lines or other site conditions warrant additional width.
- E. **Accessibility:** All recreational open space shall have at least 50 feet of frontage on at least one (1) public street within the subdivision. All six (6) foot multi-use asphalt paths, including those within greenway easements, shall be located on an easement of at least 20 feet in width that guarantees access by pedestrians and non-motorized vehicles. 10-foot asphalt multi-use paths within greenway easements required by Appendix C shall be located on an easement of at least 30 feet in width.

7.6 Recreational Open Space Credits

- A. **Parkways:** For each street segment within a development that is single-loaded (buildings fronting on one side only with recreational open space on the other), the area consisting of the length times half of the width of said street segment right-of-way shall be credited at a rate of 100% against the passive recreational open space square foot requirement.
- B. **Historic Resources:** Historic resources determined by the Administrator as candidates for local historic district or local historic landmark designation per Chapter 160A, Article 19, Part 3C of the North Carolina General Statutes, and are identified for preservation as part of a development proposal shall be credited 200% of the area against the passive recreational open space square foot requirement. In the case of historic buildings “preservation” shall constitute active rehabilitation and use of the building or deeded transfer of the building(s) and associated property to a local historic preservation organization enabled to receive such transfers.

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