



Appendix G. Future Land Use Category Locational Criteria

The Future Land Use Plan’s land use classifications are determined by a set of locational criteria specific to each classification. Land in the County was evaluated using the following set of criteria in order to determine the suitability of certain locations to contain various land uses. The locational criteria include:

- Land/Slope
- Hydrology
- Flora and Fauna
- Soil Conditions
- Public Services/Utilities
- Transportation System
- Energy Use
- Existing Land Use
- Agriculture and Forestry
- Population Density
- Historic and Cultural Features

Table D-1 provides the specific locational criteria for each land use classification.

TABLE G-1: FUTURE LAND USE CLASSIFICATION LOCATIONAL CRITERIA

Future Land Use Plan Classifications	Locational Criteria
Urban (DEVELOPED)	<ul style="list-style-type: none"> ▪ Land/Slope: No evaluation. ▪ Hydrology: No evaluation. ▪ Flora and Fauna: No evaluation. ▪ Soil Conditions: No evaluation. ▪ Public Services/Utilities: Located in areas which are or could be reasonably and effectively served by centralized public services and utilities. ▪ Transportation System: No evaluation ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located within the municipal boundaries or transition areas of the Towns of Chapel Hill, Carrboro, Hillsborough, and Mebane. ▪ Agriculture and Forestry: No evaluation. ▪ Population Density: No evaluation. ▪ Historic and Cultural: No evaluation.



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Future Land Use Plan Classifications	Locational Criteria
<p>Existing Urban Activity Node (DEVELOPED)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: No evaluation. ▪ Hydrology: No evaluation. ▪ Flora and Fauna: No evaluation. ▪ Soil Conditions: No evaluation. ▪ Public Services/Utilities: Located in areas which are or could be reasonably and effectively served by centralized public services and utilities. ▪ Transportation System: No evaluation ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located within the identified Urban area. ▪ Agriculture and Forestry: No evaluation. ▪ Population Density: Located in areas with moderate to high population densities. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or county identified Public Interest Areas.
<p>10-Year Transition & 20-Year Transition Areas (TRANSITION)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: No significant slope or topography problem that would unreasonably increase the cost of extending water and sewer lines. ▪ Hydrology: Located outside of 100-year flood prone areas as identified by the Corps of Engineers. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for urban uses because of good drainage characteristics and load bearing capacity for site development. ▪ Public Services/Utilities: Located in areas which are or could be reasonably and efficiently served by centralized public services and utilities. ▪ Transportation System: Located in areas that have very good road access, as well as service by rail lines. These areas should have the most complete transportation network in the county’s planning jurisdiction. ▪ Energy Use: Located within less than a 5-minute commuting time from small-scale commercial uses and a 5-10 minute commuting time from major commercial uses or an Urban area. ▪ Existing Land Use: Located in areas which are in transition from rural or low-density uses to urban or higher density uses. ▪ Agriculture and Forestry: Located away from areas where development would have a detrimental impact on productive agricultural uses and managed forest land. ▪ Population Density: Located in areas with moderate to high population densities. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or county identified Public Interest Areas.



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<p>Commercial Transition Activity Node (TRANSITION)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with slopes of less than 15% grade. ▪ Hydrology: Located outside of 100-year flood prone areas as identified by Corps of Engineers. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for urban uses because of good drainage characteristics and load bearing capacity for site development. ▪ Public Services/Utilities: Located in areas which are or could be reasonably and efficiently served by centralized public services and utilities. ▪ Transportation System: Focused on the intersection of arterial and/or collector highways and extending 0.5miles beyond such intersections or within one mile of an interstate interchange. ▪ Energy Use: Located within less than a 10 minute commute from an Urban area. ▪ Existing Land Use: Located within identified Ten or Twenty Year Transition areas. ▪ Agriculture and Forestry: Located away from areas where development would have a detrimental impact on productive agricultural uses and managed forest land. ▪ Population Density: Located in areas with moderate to high population densities. <p>Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.</p>



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<p>Commercial-Industrial Transition Activity Node (TRANSITION)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with slopes of less than 15% grade. ▪ Hydrology: Located outside of 100-year flood prone areas as identified by Corps of Engineers. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for urban uses because of good drainage characteristics and load bearing capacity for site development. ▪ Public Services/Utilities: Located in areas which are or could be reasonably and efficiently served by centralized public services and utilities. ▪ Transportation System: Focused on the intersection of arterial and/or collector highways and extending 0.5miles beyond such intersections or within one mile of an interstate interchange and within 1,000 feet of rail lines. ▪ Energy Use: Located within less than a 10 minute commute from an Urban area. ▪ Existing Land Use: Located within identified Ten or Twenty Year Transition areas. ▪ Agriculture and Forestry: Located away from areas where development would have a detrimental impact on productive agricultural uses and managed forest land. ▪ Population Density: Located in areas with moderate to high population densities. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.



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<p>Economic Development (Transition) Activity Node (TRANSITION)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with slopes of less than 15% grade. Where slopes of 15% or greater are present, protection can be provided through proper site design and construction practices. ▪ Hydrology: Located outside of 100-year flood prone areas and wetlands are present. Where flood-prone areas and wetlands exist, protection can be provided through proper site design and construction practices. ▪ Flora and Fauna: Located in areas where detrimental development impacts on local, state, or federally-acknowledged unique or endangered species, and wildlife habitats and corridors can be mitigated through proper site design and construction practices. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for development because of good drainage characteristics and load-bearing capacity for development. ▪ Public Services/Utilities: Located in areas which are or could be reasonably and efficiently served by centralized public services and facilities. When located in areas where such services and facilities are not present or planned, general soil conditions must be suitable for on-site sewage disposal systems. ▪ Transportation System: Located in areas adjacent to interstate and major arterial highways, particularly those with the potential for providing access to public transit facilities. ▪ Energy Use: Located within 10 minutes commuting time from an Urban area and designed so that business uses provided within developments limit the number of short distance commutes for goods and services. ▪ Existing Land Use: Located in designated Ten or Twenty-Year Transition Areas. ▪ Agriculture and Forestry: Located away from areas where development would have a detrimental impact upon productive agricultural uses and managed forest land, and/or where the existing landscape character can be maintained through proper site design and construction practices. ▪ Population Density: Located in areas with moderate to high population densities. ▪ Historic and Cultural: Located in areas where detrimental development impacts on local, state, or federally-acknowledged historic, cultural, and/or archaeological sites, or county-designated Public Interest Areas does not exist or can be mitigated through proper site design and construction practices.



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<p>Rural Community Activity Node (COMMUNITY)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with slopes of less than 15% grade. ▪ Hydrology: Located outside of 100-year flood prone areas as identified by Corps of Engineers. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for on-site sewage disposal systems. ▪ Public Services/Utilities: Located in areas that will not require urban-type services. ▪ Transportation System: Focused on the intersection of arterial and/or collector highways and extending 0.5miles beyond such intersections. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Location characterized by a cross-road that serves as a focal area for the surrounding rural and farm population and contains three or more commercial or institutional land uses. ▪ Agriculture and Forestry: Located at sites within rural areas that would not unreasonably intrude upon the existing landscape character. ▪ Population Density: Located in areas which would serve the surrounding low-density rural and agricultural population, generally 1,000-5,000 persons. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.
<p>Rural Buffer (RURAL)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: No evaluation. ▪ Hydrology: No evaluation. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for on-site sewage disposal and agricultural uses. ▪ Public Services/Utilities: Located in areas that will not require urban-type services. ▪ Transportation System: No evaluation. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas directly outside of Transition and Urban areas where prevailing uses are rural residential and agricultural in nature. ▪ Agriculture and Forestry: See Existing Land Use. ▪ Population Density: Located in areas with a very low-density rural population. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.



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Future Land Use Plan Classifications	Locational Criteria
<p>Rural Residential (RURAL)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with an overall slope of less than 15% grade. ▪ Hydrology: Located outside of 100-year flood prone areas as identified by the Corps of Engineers. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for on-site sewage disposal systems. ▪ Public Services/Utilities: Located in areas that will not require urban-type services. ▪ Transportation System: No evaluation. ▪ Energy Use: Located in areas at least 5 minutes commuting time from an activity node. ▪ Existing Land Use: Located in association with other low-density rural residential uses in general proximity to developed or developing activity nodes. ▪ Agriculture and Forestry: Located away from areas that would, if developed, have a detrimental impact on productive agricultural and managed forest land. ▪ Population Density: Located in areas of rural population density, generally one dwelling unit per acre. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.
<p>Agricultural-Residential (RURAL)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: No evaluation. ▪ Hydrology: No evaluation. ▪ Flora and Fauna: No evaluation. ▪ Soil Conditions: Located in areas where general soil conditions are good for agriculture production. ▪ Public Services/Utilities: Located in areas where urban-type services, especially water and sewer lines, are not needed and should be discouraged. ▪ Transportation System: No evaluation. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas where the prevailing activity is agriculture or forestry and which is outside of non-farm clusters of population. ▪ Agriculture and Forestry: See Existing Land Uses. ▪ Population Density: Located in areas of very low population density which is dispersed in a manner typical of agriculturally productive areas. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.



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Future Land Use Plan Classifications	Locational Criteria
<p>Rural Neighborhood Activity Node (RURAL)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with an overall slope of less than 15% grade. ▪ Hydrology: Located outside of 100-year flood prone areas as identified by the Corps of Engineers. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for on-site sewage disposal systems. ▪ Public Services/Utilities: Located in areas that will not require urban-type services. ▪ Transportation System: Focused on the intersection of arterial and/or collector highways and extending 0.25 miles beyond such intersections. ▪ Energy Use: Located at least two miles from another Rural Neighborhood Activity Node. ▪ Existing Land Use: Located in an area surrounded by rural or agricultural residential uses and containing one or two commercial uses. ▪ Agriculture and Forestry: Located at sites within rural areas that would not unreasonably intrude upon the existing landscape character. ▪ Population Density: Located in areas which would serve the surrounding low-density rural and agricultural population, generally less than 1,000 persons. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.



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<p>Rural Industrial Activity Node (RURAL)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with an overall slope of less than 15% grade. ▪ Hydrology: Located outside of 100-year flood prone areas as identified by the Corps of Engineers. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where general soil conditions are suitable for on-site sewage disposal systems. ▪ Public Services/Utilities: Located in areas that will not require urban-type services. ▪ Transportation System: Focused on the intersection of arterial and/or collector highways and extending 0.5 miles beyond such intersections. ▪ Energy Use: Located at least five miles from another Rural Industrial Activity Node. ▪ Existing Land Use: Located in an area surrounded by rural, very low-density residential uses, or agricultural uses. ▪ Agriculture and Forestry: Located at sites within rural areas that would not unreasonably intrude upon the existing landscape character. ▪ Population Density: Located in areas with a very low-density rural population. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.
<p>Agricultural Areas (RURAL)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: No evaluation. ▪ Hydrology: No evaluation. ▪ Flora and Fauna: No evaluation. ▪ Soil Conditions: Located in areas where soil conditions are good for agriculture production. ▪ Public Services/Utilities: Located in areas where urban-type services, especially water and sewer lines, are not needed and should be discouraged. ▪ Transportation System: Located in areas with access to roads that can be used for product transportation. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas where the prevailing activity is agriculture, and outside of non-farm clusters of population. ▪ Agriculture and Forestry: See Existing Land Uses. ▪ Population Density: Located in areas of very low population density which is dispersed in a manner typical of agriculturally productive areas. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.



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<p>Extractive Uses</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located on land with slopes of less than 15%. ▪ Hydrology: Located outside water supply watersheds where runoff might affect water quality. ▪ Flora and Fauna: Located away from sites that would, if developed, create a threat to unique or endangered species as identified by the state or federal government. ▪ Soil Conditions: Located in areas where soil conditions and stability are suitable for extractive operations. ▪ Public Services/Utilities: Located in areas where urban-type services, especially water and sewer lines, are not needed and should be discouraged. ▪ Transportation System: Located on or near areas with access to roads that are designed for heavy vehicle operation. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas where the prevailing activity is agriculture, and outside of non-farm clusters of population. ▪ Agriculture and Forestry: See Existing Land Uses. ▪ Population Density: Located in areas of very low population density which is dispersed in a manner typical of rural areas. ▪ Historic and Cultural: Located away from areas where development would have a detrimental impact on state or federally acknowledged historic-cultural sites or County identified Public Interest Areas.
<p>Public Interest Area (CONSERVATION)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: No limitation. ▪ Hydrology: Located in areas that may be within 100-year flood areas. ▪ Flora and Fauna: Located in areas that may contain unique and endangered species as identified by state or federal government. ▪ Soil Conditions: No limitation. ▪ Public Services/Utilities: Located in areas where urban-type services, especially water and sewer lines, are not needed and should be discouraged. ▪ Transportation System: Located in areas where arterial or collector highways would not exist or be needed. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas containing specialized uses, generally owned by public or quasi-public institutions. ▪ Agriculture and Forestry: No limitations. ▪ Population Density: Located in areas which by their nature would have an extremely low-density population or contain no permanent residential population. <p>Historic and Cultural: Located in areas that may have historic or cultural values as identified by state or federal governments or the county.</p>



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Future Land Use Plan Classifications	Locational Criteria
Water Supply Watershed (CONSERVATION)	<ul style="list-style-type: none"> ▪ Land/Slope: No limitation. ▪ Hydrology: Integral to Land Use Plan Category. ▪ Flora and Fauna: No evaluation. ▪ Soil Conditions: No evaluation. ▪ Public Services/Utilities: Located in areas where urban-type services especially water and sewer lines should be discouraged unless a Ten or Twenty-Year Transition area is present. ▪ Transportation System: No evaluation. ▪ Agriculture and Forestry: No evaluation ▪ Population Density: No evaluation. ▪ Historic and Cultural: No evaluation.
Watershed Critical Area (CONSERVATION)	<ul style="list-style-type: none"> ▪ Land/Slope: No evaluation. ▪ Hydrology: Located in areas which drain directly to a water supply impoundment by overland flow and interflow or which drain directly to the main channel of trunk stream feeding the impoundment. ▪ Flora and Fauna: No evaluation. ▪ Soil Conditions: No evaluation. ▪ Public Services/Utilities: Located in areas characterized by low-density residential minimal non-residential development. ▪ Transportation System: No evaluation. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas which are characterized by a low density residential and minimal non-residential development. ▪ Agriculture and Forestry: No evaluation. ▪ Population Density: Located in areas with low population densities. ▪ Historic and Cultural: No evaluation.



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Future Land Use Plan Classifications	Locational Criteria
<p>Resource Protection Area (CONSERVATION)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located in areas where slopes are 15% or greater. ▪ Hydrology: Located in wetlands and 100-year floodplain areas along drainage tributaries or adjacent to steep slopes. ▪ Flora and Fauna: Located in areas that contain significant and natural areas and wildlife habitats, including connecting wildlife corridors, as identified by local, state, or federal inventories. ▪ Soil Conditions: Located in areas that contain alluvial and/or hydric (wet soils). ▪ Public Services/Utilities: Located in areas where urban-type services will not be required and should be discouraged. ▪ Transportation System: Located in areas where arterial or collector highways would not exist or be needed. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas that are best left undeveloped because of their limitations or unsuitability for development, and/or preserved because of the presence of environmentally sensitive features and/or historically significant sites. ▪ Agriculture and Forestry: See Existing Land Uses. ▪ Population Density: Located in areas which by their nature would have no permanent residential population. ▪ Historic and Cultural: Located in areas containing historic and/or archaeological sites listed on the National Register of Historic Places, included on the National Register Study List, designated as a local historic district or landmark, and/or identified as having a high potential for archaeological remains.



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<p>New Hope Creek Corridor Open Space (CONSERVATION)</p> <p>(refer to the <i>New Hope Corridor Open Space Master Plan</i> for details.)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: Located in areas where slope varies from gradual along floodplains to 20% and above. ▪ Hydrology: Located primarily along New Hope Creek and its tributaries, including the 100-year floodplain. Designated as “Important Regional Wetland” by the U.S. Fish and Wildlife Service. ▪ Flora and Fauna: Located in areas which contain great diversity, including regionally rare plant species, hardwood trees of size and number uncommon for their location, and important wildlife habitat. ▪ Soil Conditions: Located in areas where soils vary from well-drained, moderately steep firm clay to nearly level alluvial soils subject to flooding. ▪ Public Services/Utilities: Located in areas where urban-type services will not be required and should be discouraged. ▪ Transportation System: Located in areas where the principal form of transportation will be bike paths and pedestrian trails located adjacent to the rights-of-way of interstate highways and minor arterials. ▪ Energy Use: No evaluation. ▪ Existing Land Use: Located in areas that are generally undeveloped due to slope or soil limitations, in addition to specialized use areas in Duke Forest, and paths/trails adjacent to or within road rights-of-way. ▪ Agriculture and Forestry: Located in areas which may be suitable for agriculture and forestry, with the exception of steep slopes. See also Existing Land Use. ▪ Population Density: Located in areas which by their nature would be very low density residential areas. Portions in Duke Forest are not for residential use. ▪ Historic and Cultural: Located in areas which may have sites and/or structures of historic or cultural value as identified by federal, state, or county government.
<p>Stoney Creek Basin (CONSERVATION)</p> <p>(refer to the Spring 1995 UNC Students’ Report - “Three Development Options: Conventional, Density-Neutral, Neo-Traditional” and the <i>Stoney Creek Basin Small Area Plan</i> for more details.)</p>	<ul style="list-style-type: none"> ▪ Land/Slope: No evaluation. ▪ Hydrology: Located within the boundaries of the 4,696 acre Stoney Creek Drainage Basin southeast of the Town of Hillsborough in portions of Hillsborough, Eno, and Chapel Hill Townships. ▪ Flora and Fauna: No evaluation. ▪ Soil Conditions: No evaluation. ▪ Public Services/Utilities: No evaluation.. ▪ Transportation System: No evaluation. ▪ Energy Use: No evaluation. ▪ Existing Land Use: No evaluation. ▪ Agriculture and Forestry: No evaluation. ▪ Population Density: No evaluation. ▪ Historic and Cultural: No evaluation.



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