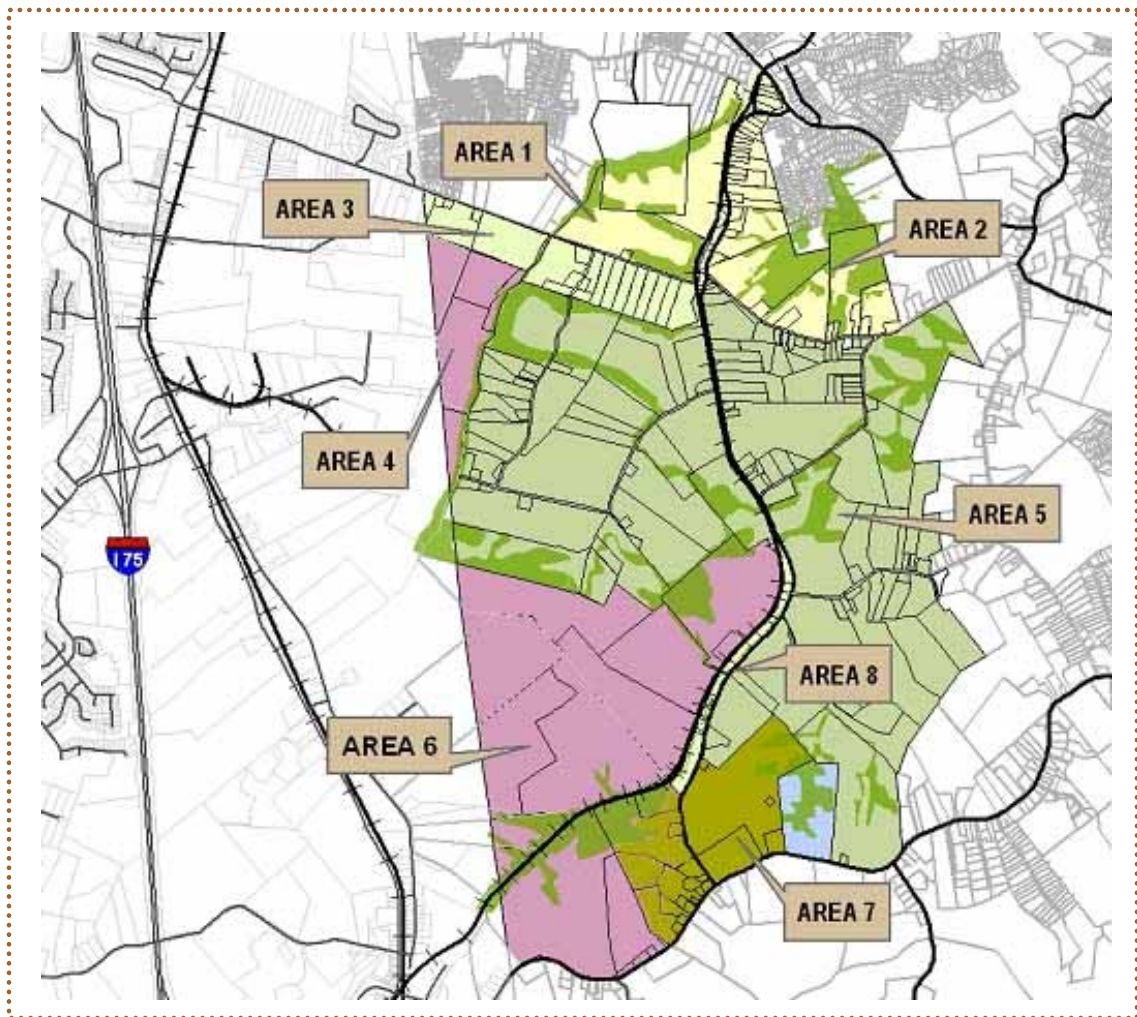
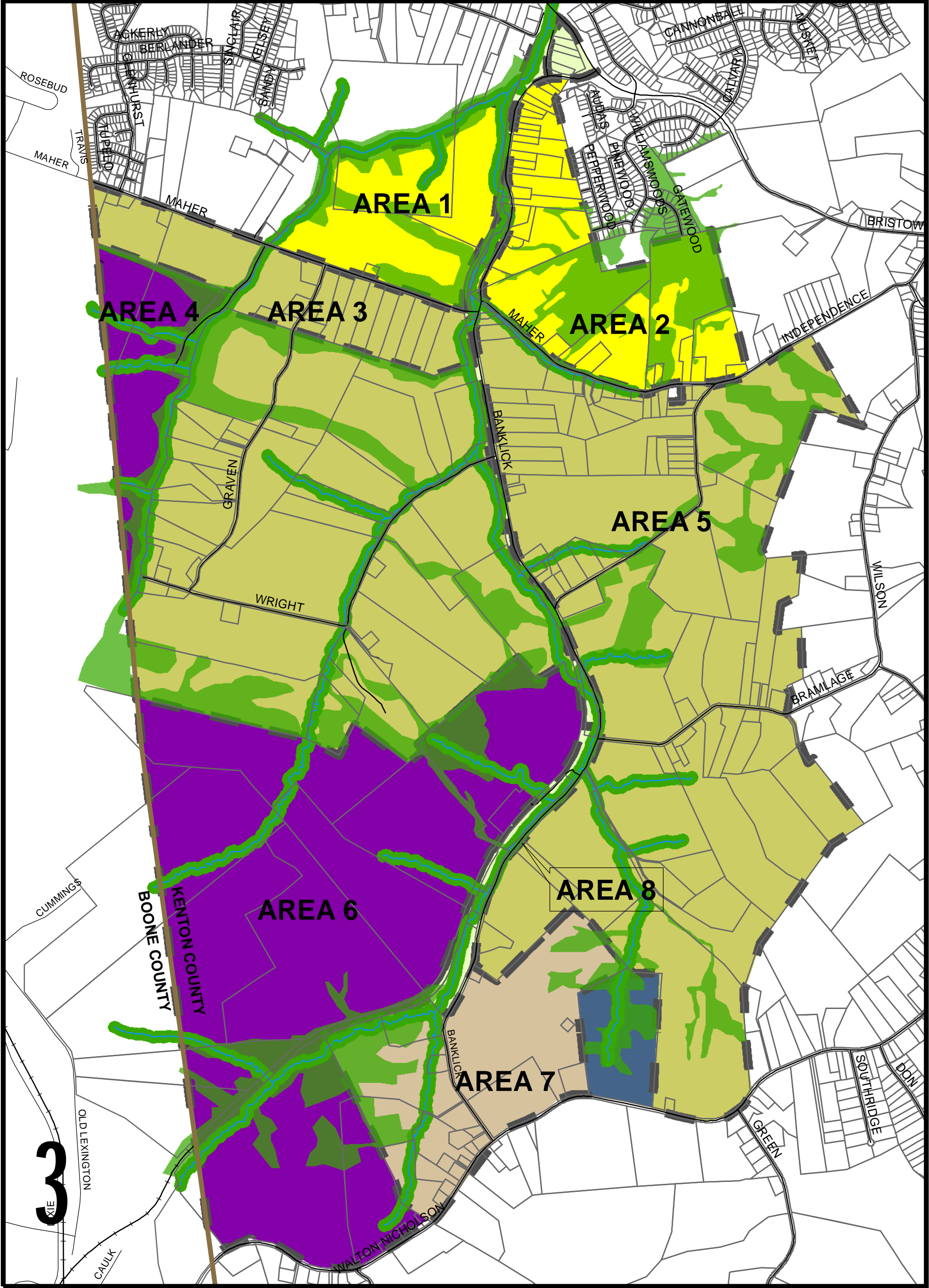


SUB AREA RECOMMENDATIONS

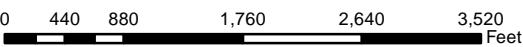
The study area was divided into eight sub-areas for identification and discussion purposes. Detailed recommendations for each of the areas are outlined in this section.



MAP 4 : LANDUSE RECOMMENDATIONS



South Banklick Small Area Study



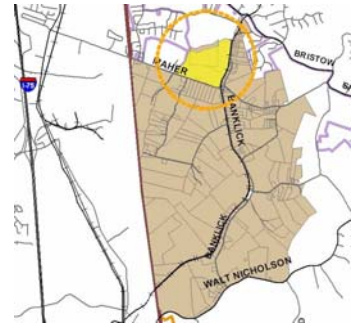
Legend		
Single family	Eco Commerce Park	Streams
Agriculture	Mixed Residential	Greenway
Conservation Subdivision	FutureSchool	Property Boundary

AREA 1:

Location: north of Maher Road and west of the railroad along Banklick Road; Banklick Creek runs along the northern boundary. The area contains approximately 153 acres.

Recommended Land Use: Single-Family Residential at 2.1 to 4.0 units/acre

Recommended zoning: Residential Planned Unit Development (PUD)



This area is presently surrounded by residential land uses with a density of 2.1 to 4.0 units per acre and is viewed as an extension of existing subdivisions such as Glenhurst and Jewel Point. It is in close proximity to Mt. Zion Road, a major east west arterial, enabling convenient access to the interstate, shopping, and jobs. The topography of the area allows it to blend into the surrounding development.

RECOMMENDATIONS:

- ✓ Viewsheds along Maher Road should be protected to preserve the rural feel of the area and provide for attractive residential development in the future (see Chapter 3: Viewshed Protection).
 - Houses built along Maher Road should have setbacks similar to those along the south side of the road. Screening (trees) with earthen berms should be utilized to screen them from view of Maher Road.
- ✓ Access connecting Maher Road to Hogrefe Road should be provided.
 - The heavily-used railroad east of the area hinders traffic movement between Maher and Banklick Roads. A secondary access to Hogrefe Road and eventually to Mount Zion Road would provide an alternate route for residents, school buses, emergency services, and every-day traffic.
 - An access stub is currently provided in the Glenhurst subdivision adjacent to this area. Road connections should be provided to the access stub provided in Glenhurst and to development that will be built to the north. This is not intended to provide a major through connection but to allow local movements via the local street system.
- ✓ Street connections and trails to Glenhurst, Jewel Point, and future residential developments should be provided to improve connectivity.
 - Connectivity between subdivisions encourages residents to walk rather than drive thereby reducing trips on Maher Road.
- ✓ A nature park with walking trails along tributaries to Banklick Creek should be provided.
 - The nature park should be at least 75 feet wide along Banklick Creek from Maher Road to the railroad and provide for passive open space and recreational opportunities for residents in the area. It should also protect steep slopes that exist in the area.
- ✓ Existing greenway area should be protected as much as possible (see Chapter 3: Greenways) to preserve existing tree canopy and viewsheds from Maher Road.

Challenge:

An undeveloped portion of this area was annexed by the City of Independence and rezoned to R-1 (D) which permits densities up to 4.8 units per acre.

Given the topography of the area, development at a density of 2.5 to 3 units per acre would be more suitable.

Collaboration with developers will be necessary to implement this study's recommendations for this area and portions of Area 2 (also annexed by the City of Independence) and rezoned for higher density development.

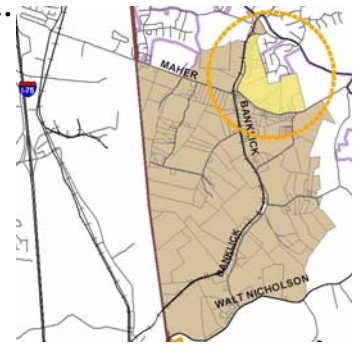
- ✓ Riparian protection regulations should be developed to protect vegetated areas along Banklick Creek and its tributaries (see Chapter 3: Riparian Protection).
 - Banklick Creek is currently listed as impaired for several uses in the State's list of impaired waterways. Protecting the vegetation along the stream will minimize sedimentation and erosion problems associated with development. Floodway boundaries should be used in analyzing the required area to be protected.

AREA 2:

Location: east of Banklick Road and north of Maher Road. The area contains approximately 226 acres.

Recommended Land Use: Single-Family Residential at 2.1 to 4.0 units per acre

Recommended zoning: Residential Planned Unit Development (PUD)



This area is presently surrounded by land uses with densities of 2.1 to 4.0 units per acre and is viewed as an extension of existing subdivisions such as Williams Woods to the north. It is in close proximity to Mt.Zion Road, a major east west arterial, enabling convenient access to the interstate, shopping, and jobs.

RECOMMENDATIONS:

- ✓ Residential densities in this area should be kept to 2.1 to 4.0 units per acre.
 - This area is viewed as an extension of existing subdivisions north of the study area such as Williams Woods which is currently built at a density of 2.5 units per acre.
- ✓ Road and pedestrian connections should be provided between all existing and future developments in this area.
 - Internal connections between neighborhoods improve connectivity for vehicular and pedestrian access thereby reducing the number of trips on local roads.
- ✓ Existing greenway area should be protected as much as possible (see Chapter 3: Greenways) to preserve existing tree canopy and viewsheds from Maher Road.
- ✓ Improvements should be pursued to the Maher Road/Banklick Road intersection.
 - The Maher Road intersection with Banklick Road should be aligned and designed to permit safe turn movements.
 - New intersections created to provide local road connections should be designed to allow safe turn movements and storage lanes to remove stopped traffic from driving lanes.
- ✓ No new individual curb cuts should be permitted along Banklick Road as the area develops.
 - Over 20 driveways have direct access to Banklick Road in this area currently. A coordinated form of development should be sought for adjacent parcels to minimize new access points in the future. One option could be to require the use of shared driveways.

Challenge:

An undeveloped portion of this area was annexed by the City of Independence and rezoned to R-1 (D) which permits densities up to 4.8 units per acre.

Given the topography of the area, development at a density of 2.5 to 3 units per acre would be more suitable.

Collaboration with developers will be necessary to implement this study's recommendations for this area and portions of Area 1 (also annexed by the City of Independence) and rezoned for higher density development.

Mahe Road east of Banklick Road

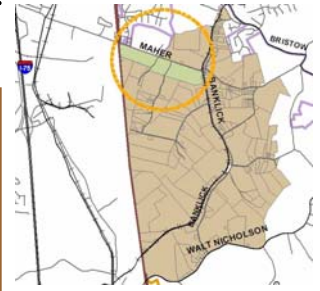


AREA 3:

Location: adjacent to the south side of Maher Road between Banklick Road and the Boone County Line. The area contains approximately 143 acres.

Recommended Land Use: Residential Conservation Subdivision

Recommended zoning: Conservation Subdivision (new regulations)



The south side of Maher Road is occupied by large lot residential uses. The Conservation Subdivision concept will help maintain the rural feel of the area by requiring open space and clustering of single-family homes. This will provide an opportunity for a substantial buffer between existing and future residential uses and help protect natural features such as hillsides and riparian areas.

RECOMMENDATIONS:

- ✓ New regulations should be developed for this area to permit conservation subdivisions (see Area 5 for a complete description) in addition to those permitted under current Agriculture (A-1) regulations.
 - Conservation subdivision regulations should preserve viewsheds along collectors and arterials. They should also protect viewsheds along Maher Road (see Chapter 3: Viewshed Protection).
- ✓ Riparian protection regulations should be prepared and adopted to protect vegetated areas along Banklick Creek and its tributaries (see Chapter 3: Riparian Protection).
 - Banklick Creek is currently listed as impaired for several uses in the State's list of impaired waterways. Protecting the vegetation along the stream will minimize sedimentation and erosion problems associated with development.
 - Floodway and floodplain boundaries, slopes adjacent to the stream, and existing vegetation should be used in analyzing the required area to be protected.
- ✓ New curb cuts onto Maher Road should be minimized.
 - Limiting direct access to major roadways will create safer movements for vehicles on Maher Road and aid in continuous traffic flow.
 - Shared driveways should be encouraged to minimize the number of access points on Maher Road.
- ✓ Transportation improvements to Maher Road discussed in Chapter 3 should be pursued when development is proposed.

View of Maher Road

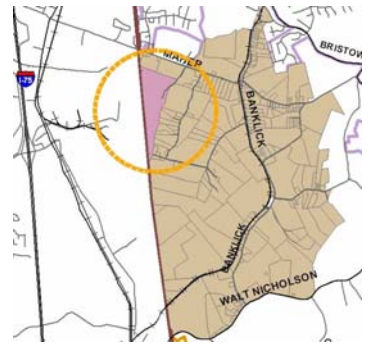


AREA 4:

Location: east of the Kenton/Boone County Line and west of the creek separating this area from existing residential uses on Graven Road. The area contains approximately 115 acres.

Recommended Land Use: Eco Commerce Park

Recommended Zoning: Eco Commerce Park (new regulations)



The best access to this area is from existing industrial roads in Boone County due to terrain issues. Under these circumstances, designating this area for residential use is unreasonable. Agricultural uses such as those existing in the area are compatible with most industrial activities. The area's topography and potential streamside greenways can be used to minimize the impact of Eco Commerce Park uses on nearby residential uses. It would reserve the land for future Eco Commerce Park uses and increase the tax base for the County to support services needed in area.

CHALLENGE:

This area may be the first Eco Commerce Park area to develop due to the proximity of the Shoreland Drive stub in Boone County and the minimal land available due to site constraints. Because of this, it is expected that development in this area will most likely be an extension of development in Boone County.

Shoreland Drive in Boone County



RECOMMENDATIONS:

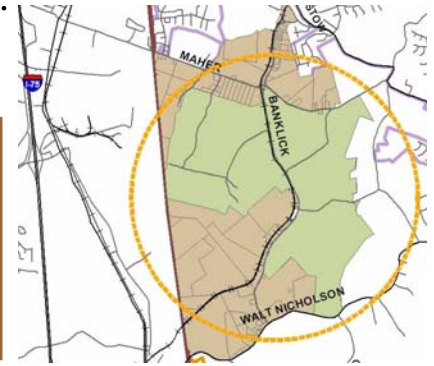
- ✓ Eco Commerce Parks should allow for light industrial uses such as manufacturing, warehousing, and packaging when they meet appropriate performance standards. It should also allow agriculture as a permitted use.
 - The intent of the Eco Commerce Park area is to allow for a wide variety of light industrial uses that meet certain performance standards for noise, light, and odors.
 - The regulations should limit the size and height of buildings so as to minimize their visual impact on near-by residential areas.
 - Agricultural uses are more compatible with industrial than residential uses and should continue to be encouraged in the area.
- ✓ Access to this Eco Commerce Park should be from Boone County, not Maher or Graven roads.
 - Coordination should be pursued with Boone County for the infrastructure improvements that will be needed in the area.
- ✓ Areas identified as greenways in Chapter 3 should be protected as much as possible.
 - These areas will provide necessary buffers between residential and industrial uses (see Chapter 3: Greenways).
- ✓ Innovative low impact development methods for stormwater management should be explored.
 - This area is located in the upper reaches of the Banklick Creek Watershed which is designated as an impaired waterway. Low impact development methods such as pervious pavements, green parking lots, and bio-retention areas to reduce stormwater runoff will improve water quality.

AREA 5:

Location: east and west of Banklick Road and south of Maher Road. The area contains approximately 1750 acres.

Recommended Land Use: Residential Conservation Subdivision

Recommended zoning: Conservation Subdivision (new regulations)



This area contains streams, hillsides, viewshed, and other natural features. In order to encourage a form of development that protects these natural features, the Conservation Subdivision is suggested. The Conservation Subdivision concept will help protect the rural feel of the area by requiring open space and minimizing land disturbance through clustering of single-family homes.

RECOMMENDATIONS:

- ✓ New regulations should be developed for this area to permit conservation subdivisions in addition to those permitted under current Agriculture (A-1) regulations.
 - This area contains the largest acreage of all areas within the study area. While residential development is appropriate for this area, it should be pursued in a manner compatible with an environment that includes significant acreage in hillsides, streams, viewsheds, and canopy cover.
 - The design process for a conservation subdivision should begin by outlining areas that should be protected and designing home sites around them.
 - Conservation subdivisions will help protect the area's natural features while allowing for residential development to occur.
 - A minimum of 30 percent of the development should be retained as open space.
- ✓ This area should develop at a base density of no more than one dwelling unit per acre with a provision to increase density if a Conservation Subdivision is pursued.
 - Because Conservation Subdivisions are an option, incentives should be added to encourage developers to pursue them.
 - Density bonuses should be pursued as an incentive if additional requirements such as those listed below are met.
- ✓ In order to encourage developers to build conservation subdivisions density bonuses should be pursued.
 - Density bonuses should be considered for meeting the following: additional setback from collectors or arterials; additional open space; public access to open space; and, preservation of historic homes.
- ✓ Open space should be provided around the developed area of Conservation Subdivisions to provide a buffer between existing and future residential developments.
 - The close proximity of clusters to existing large lot subdivisions was a concern expressed with the clustering concept in Conservation Subdivisions during the public input process. New developments should use open space to buffer adjacent larger lot developments.
 - Vegetation within open spaces will break the visual impact of a sea of homes in a highly visible area.

Conservation Subdivision

- The intent of this type development is to permit clustering of houses to preserve surrounding land as open space.
- This pattern of development ensures the protection of hillsides and stream corridors that need protection.
- The clustering of houses within an area will reduce the length of roads and reduce maintenance costs.
- Residents attending the public workshops for this study supported this form of development and saw it as a viable mechanism to preserve the rural character of the area.

- ✓ Flexibility should be provided to developers in terms of lot layouts and infrastructure requirements.
 - While traditional zoning requirements specify minimum lot sizes and setbacks, the conservation subdivision concept provides flexibility.
- ✓ Inter-connected trails and walkways between subdivisions should be provided to reduce the number of vehicles on local streets.
 - Trails and walkways should be provided within subdivisions rather than sidewalks to encourage mobility and connectivity and to enhance the rural feel of the area.
 - A trail system should be established connecting subdivisions. Areas along the Banklick Creek may be used as a resource to establish a recreational corridor.
- ✓ Low impact development (LID) principles should be encouraged in the area to facilitate storm water management.
 - LID techniques use bio retention areas or grassed swales to store stormwater and allow it to infiltrate aquifers.
 - Impervious areas should be minimized where possible and pervious pavements and porous materials should be used.

Low Impact Development (LID)

This concept incorporates natural systems such as wetlands, stream corridors, and so on as design elements.

LID¹ aims to:

- minimize impervious surfaces;
- disconnect hydrologic elements (roofs, downspouts, parking areas);
- maintain/increase flow paths and times; and
- utilize decentralized treatment practices.

The use of LID techniques have been proven to reduce costs significantly and create a system that is integrated with the natural environment.

¹ National Association of Home Builders Research Center, www.nahbrc.org



AREA 6:

Location: east of the Boone County Line, west of the railroad, and north of Walton-Nicholson Road. The area 6 contains approximately 811 acres.

Recommended Land Use: Eco Commerce Park

Recommended Zoning: Eco Commerce Park Zone (new regulations)



Adjacent land in Boone County is zoned for industrial uses. The Eco Commerce Park land use designation for this area is a logical extension of those industrial uses. Preserving greenway areas illustrated in this study should provide a logical transition between Eco Commerce Park uses and less-intensive residential uses.

RECOMMENDATIONS:

- ✓ Eco Commerce Parks should allow for light industrial uses such as manufacturing, warehousing, and packaging when they meet appropriate performance standards. It should also allow agriculture as a permitted use.
 - The intent of the Eco Commerce Park area is to allow for a wide variety of light industrial uses that meet certain performance standards for noise, light, and odors.
 - The regulations should limit the size and height of buildings so as to minimize their visual impact on near-by residential areas.
 - Agricultural uses are more compatible with industrial than residential uses and should continue to be encouraged in the area.
 - Lighting standards requiring full cut-off fixtures will minimize light spill-off to surrounding areas.
- ✓ Access to this area should be provided through Boone County, not from Graven, Wright, and Banklick Roads or future residential streets in the area.
 - Coordination should be pursued with Boone County for the infrastructure improvements that will be needed in the area.
- ✓ The impact of the Eco Commerce Park district on adjacent residential uses should be minimized by using existing vegetation, streams, and/or providing a minimum 100 feet buffer between land uses.
 - Where there is no natural buffer, site topography should be used to provide a buffer a minimum of 100 feet wide.
- ✓ Riparian protection regulations should be prepared and adopted to protect vegetated areas along Banklick Creek and its tributaries (see Chapter 3: Riparian Protection).
 - Banklick Creek is currently listed as impaired for several uses in the State's list of impaired waterways. Protecting the vegetation along the stream will minimize sedimentation and erosion problems associated with development.
 - Floodway and floodplain boundaries, slopes adjacent to the stream, and existing vegetation should be used in analyzing the required area to be protected.
- ✓ Low impact development (LID) principles should be encouraged in the area to facilitate storm water management.
 - LID techniques use bio retention areas or grassed swales to store storm water and allow it to infiltrate aquifers.
 - Impervious areas should be minimized where possible and pervious pavements and porous materials should be used.

AREA 7:

Location: east of Banklick Road and north of Walton-Nicholson Road, adjacent to a future school site. The area contains approximately 239 acres.

Recommended Land Use: Mixed Residential

Recommended zoning: Mixed Residential (new regulations)



This area is recommended for mixed residential uses due to its close proximity to a future school site, to the Eco Commerce Park area, and its location at the intersection of Banklick and Walton-Nicholson Roads. Requiring a mix of housing types will provide a variety of choices for people who live and work in the area. It will also minimize vehicles miles traveled on roads within the study area.

RECOMMENDATIONS:

- ✓ The Mixed Residential area should allow for developments with a majority of detached single-family homes and a 25 percent minimum of condominiums or townhomes.
 - Providing for moderate density development in close proximity to the proposed school will facilitate a walkable community.
 - The proposed mixture of housing types will serve the varied housing needs of the community and the nearby Eco Commerce Park area.
- ✓ A small amount of rural commercial uses may be permitted in the area to serve the needs of surrounding neighborhoods
 - A small number of neighborhood-scale commercial uses should be permitted in the area to facilitate walk-in shopping trips without taking business away from the City of Walton or the Nicholson.
- ✓ Viewsheds along Banklick Road should be protected to preserve the rural feel of the area and provide for attractive residential development in the future (see Chapter 3: Viewshed Protection).
 - This is required to preserve the rural feel of the area that currently exists while allowing for residential development in the future.
 - It is essential in preserving scenic corridors along the major residential roads in the area. When future development incorporates certain elements similar to that in existing developments a sense of community is created.
- ✓ Existing greenway area should be protected as much as possible (see Chapter 3: Greenways) to preserve existing tree canopy and viewsheds from Maher Road.

AREA 8:

Location: the long, narrow area located between the railroad and Banklick Road. The area contains approximately 98 acres.

Recommended Land Use: Single Family Residential at a density of no more than 1.0 dwelling unit per acre

Recommended zoning: Agriculture (A-1)



This narrow area is vital to protecting the area's viewsheds. Some of the area is located along or within floodplains. As such, it is ideal for agricultural purposes and very low-density development that minimizes land disturbance and the impact on natural features.

RECOMMENDATIONS:

- ✓ This area is recommended for agriculture/low density development at a density of no more than one dwelling unit per acre.
 - The Banklick Creek flows through much of this area making it inappropriate for intensive development.
 - Area 8 is vital in protecting the viewsheds along Banklick Creek.
- ✓ Viewsheds along Banklick Road should be protected to preserve the rural feel of the area and provide for attractive residential development in the future (see Chapter 3: Viewshed Protection).
 - It is essential to protect scenic corridors along the major north south collector in the area.
- ✓ Existing greenway area should be protected as much as possible (see Chapter 3: Greenways) to preserve existing tree canopy and viewsheds from Maher Road.
 - This area is identified as having canopy cover recommended for protection.
- ✓ Riparian protection regulations should be adopted to protect vegetated areas along Banklick Creek and its tributaries (see Chapter 3: Riparian Protection).
 - The entire length of Banklick Creek is currently listed as impaired for several uses in the State's list of impaired waterways. Protecting the vegetation along the stream will minimize sedimentation and erosion problems associated with development.
 - The floodway boundaries should be used in analyzing the required area to be protected.