

Blueprint for Liberty

Future Land Use Plan

City of Liberty, Missouri



Residents invited to help design city's future

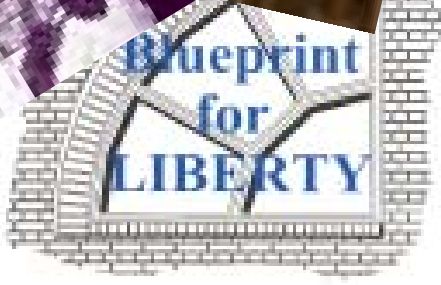
By Angie Avers
Township editor

"Come to tomorrow's 'a group of 50 persons will help the city plan its future."

When they gathered to look at images and give their opinion on a budget of houses, schools, commercial buildings, parks, parking lots and more.

"Don't think of your first impression," says city planner Dan Johnson, who put the community vision at the center of the process. "We want to hear from you."

At 7:30 p.m. on Tuesday, Feb. 11, residents are invited to help design the city's future. The meeting will give residents an opportunity to help shape the city's future. The meeting will be held from 7:30 a.m. to 2:30 p.m. in the Parkview Church, 2012 E. Parkview. Free will be provided. "It's for you," says Johnson.



Thursday, March 15, 2006

International fair

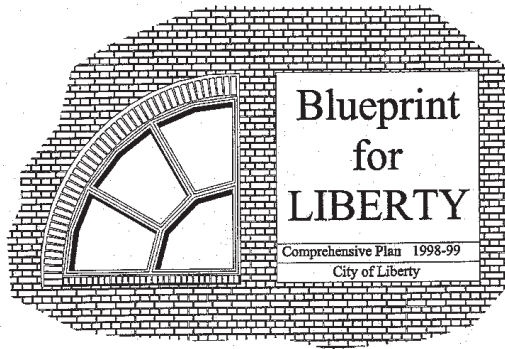
Focus on updating city

The Liberty Township Board of Supervisors has approved a plan to update the city's future land use plan. The plan will be presented to the city council on Tuesday, Feb. 11, at 7:30 p.m. in the Parkview Church, 2012 E. Parkview. Free will be provided. "It's for you," says Johnson.

blueprint:

table of contents

The Comprehensive Plan	i
Vision Statement Survey Results	ii
The Land Use Plan	1
Liberty's Context	2
Community Profile	2
Ecological Profile (summary)	8
Land Cover Types	9
Future Land Use Classifications	10
Key Recommendations	13
Liberty Neighborhood Principles	17
Implementation Strategies	28
The Interim	29
The Long-term	30
Appendix	
The Ecological Profile	38
Maps	
• Municipal Annexation Intent Areas & Principle	
Cities in Clay County	44
• School Districts In Clay County	45
• Future Land Use Map	separate document
• Land Cover Types Map	separate document



blueprint:

a program of action

Quality is no accident. To have the kind of Liberty we want to call home takes commitment. It takes citizens coming together to set a course; which is what happened with the Blueprint for Liberty. The Blueprint for Liberty was a community effort to gain citizen input in charting Liberty's course for the future. The last such program was in 1987 and was called "Liberty Outlook - the Quality Continues." Liberty Outlook resulted in the community's Comprehensive Plan for the 1990's. The Blueprint for Liberty updates Liberty Outlook and guides Liberty into the future.

The process to update the Comprehensive Plan and Vision Statement began in January of 1998 when the City Council and the Planning and Zoning Commission reviewed Liberty Outlook. The review resulted in certain themes the Commission and Council felt should be explored. Those themes were: opportunities for diversity; community identity; mix of housing costs & styles; quality commercial & industrial development; transportation for a variety of users; and sustainable development. These have been incorporated into survey items and Blueprint for Liberty workshops providing outlets for discussion and evaluation of Liberty's future.

The Vision Statement

At the Blueprint for Liberty workshop, "The Right Tools for the Job" in March, 1999 citizens expressed an interest in creating a vision statement in the form of a top ten list. A survey to determine the priorities for Liberty's future was distributed to citizens in May and June of 1999. The survey results form the "Rules for a Quality Liberty" which guide community decision-making.



What is a Comprehensive Plan?

A comprehensive plan is a general guide that helps a community make decisions about its growth and development. It establishes a vision for development within a community, and describes policies, programs, and projects that will enable the vision to be realized. The plan includes goals for how land should be used, roads built, water mains laid, sewer lines extended and parks set aside. The comprehensive plan helps local officials coordinate their decisions so they can anticipate how one decision may impact another. Because of the citizen involvement which goes into its creation, the comprehensive plan is held in high regard.



What is a Vision Statement?

A vision statement outlines in general terms what kind of community people want their city to be. It centers on community values and principles underpinning the comprehensive plan and all decisions.

Rules for a Quality Liberty

<i>Survey Results</i>	<i>Percentage respondents voting this as a priority</i>
Highest	
The public school system is a key community asset.	11.7
Very High	
Transportation routes are connected into a city-wide system that is attractive, interesting, and safe for pedestrians, bicyclists, and drivers.	8.5
A small town atmosphere is valued.	8.5
Large areas suitable for watershed management, wildlife habitat, agriculture or recreation are protected from development.	8.2
The Historic Liberty Square is the focus for commercial, civic, cultural and recreation activities for the community.	7.4
Natural terrain, drainage patterns and vegetation are preserved where development occurs.	6.8
High	
Sidewalks & streets are safe and pleasant for pedestrians.	6.5
Attracting new companies is a priority for economic development.	5.4
Residents can walk or have easy access from their homes to shops, work, schools, parks and community buildings.	5.2
Homes and yards are well maintained.	5.2
Citizens participate in all levels of community decision-making.	5.2
Medium	
The design of housing, commercial and industrial development is in keeping with the character of the city.	4.1
William Jewell College is a key community asset.	3.9
Expanding locally-owned businesses is a priority for economic development.	3.6



Back to the Future, Postcards to the Liberty of the Future

Fall Festival
September 26, 1998

Question on postcard - "If you were sending a postcard in the year 2050, how would you describe your ideal Liberty, Missouri? What would be the same? What would be different? How would it look?"

Citizens wrote:

Same friendly spirit.

I would want Liberty to have that small town feeling, but large town convenience with shopping, stores, parks. A town easy to get in and out of. Beautiful entrances into city with flowers and signs, welcoming and thanking them for coming our way.

I hope the farmlands and forests and unspoiled waterways are still around. I grew up on a farm and would be greatly saddened to see them disappear.

Liberty continues to be a very liveable city. Beautification continues to be a priority and the city gets more beautiful each year. Walking trails have been established to link the whole town. The city officials have worked very hard to manage the growth and traffic. Liberty still has a small town feel with an active town square.

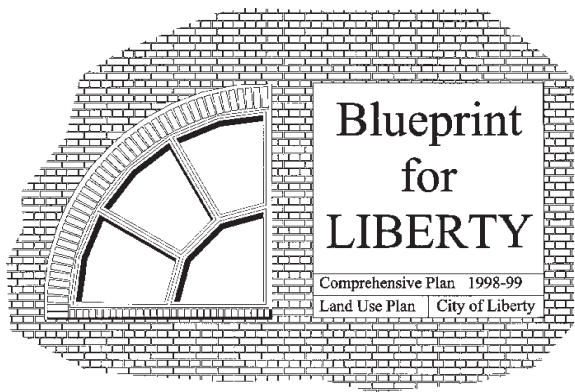
Still a wonderful place to raise children while enjoying life in the "slower" lane.

Unique in itself.

I am happy to see neighborhoods are still the foundation of the city. Liberty is a great home town!

I like towns with history and aren't afraid to show it.

Glad to see so many Liberty citizens keeping the volunteer spirit alive as they work together to take care of Liberty's needs.



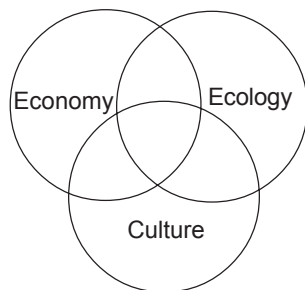
land:

the earth & its resources

The Land Use Plan

The Land Use Plan reflects the input of Liberty residents resulting from one map making session, nine workshops, and four surveys from November of 1998 through June of 1999. The vision for Liberty’s future balances our economy, ecology, and cultural resources. Balancing these resources ensures the long-term success of Liberty as a unique town where people can live, work, and play. The citizen input reflected the following central ideas:

- maintaining Liberty’s sense of community & small town feel
- making room for green space and rural areas
- ensuring a variety of housing options
- stormwater management in harmony with nature
- getting from here to there not only by car but on foot and by bike
- trees, trees, trees
- connections beyond Liberty to the metro area via public transportation.



The Land Use Plan consists of the following sections: Liberty’s Context, Future Land Use Classifications & Map, Key Recommendations, Liberty Neighborhood Principles, and Implementation Strategies.



What is a Land Use Plan?

The Land Use Plan is a component of the Comprehensive Plan. It takes into consideration where houses, stores, and factories should be located. It gives direction on how the different land uses fit together and relate to one another. It answers questions like - What kind of neighborhoods do we want? What should be preserved? How can development stay in tune with the community’s character?



Greetings from Liberty postcard

**Boards & Commissions Dinner
February 13, 1999**

*Question on postcard -
“Recount your first impressions of Liberty. What made you move here, stay here and become an active citizen?”*

Citizen wrote:

My first impression of Liberty was that it is a lovely, clean, self-contained, historical town. Self-contained in that it has all the amenities needed to carry on daily life without having to go out of town. It also is to me a very friendly place where my children have thrived. I moved here because of the inviting atmosphere and have stayed here because I found my original impressions to be true and because of how well I enjoy the people here.

Liberty's Context

This section places Liberty within the larger context of regional and national trends. It is a profile of current conditions and provides insight into Liberty's potential.

Community Profile

The City of Liberty, Missouri is the county seat of Clay County, one of thirteen counties comprising the Kansas City metropolitan area. The City is located fifteen miles northeast of downtown Kansas City. Residents enjoy the rural aspects of Clay County and the proximity of cultural and recreational activities of the metropolitan Kansas City area.



For many decades, Liberty was a rural trade center surrounded by farmland and open space. The community enjoyed wide separation from its nearest neighbors and change was slow. Today, Liberty is in the midst of urban expansion in the Northland and its citizens are intent on maintaining Liberty's sense of identity and unique character.

Between 1990 and 1999, the population of Liberty increased by 25%, or 5,069 persons, to a population of 25,528. This change in population is consistent with the previous decade (26%) and the nearly 20% increase between 1970 and 1980. Between 1998 and 2003, the population is projected to increase by 11%, or 2,780 persons, to a population of 28,308. The Mid America Regional Council is projecting the annual population growth rate in Liberty to be 3% which is slightly greater than the rate of growth in the past two decades. The projected annual rate of growth for Liberty is greater than that for the Kansas City metropolitan area. As a result, Liberty will be capturing more of the region's population than other communities during the next decade.

The population in Liberty is predominantly white and young. Minority races accounted for less than 6% of the population in 1990. Forty-six percent of the population was in the 18 to 44 year old age group. The population distribution among age groups younger or older than this is nearly identical (27% each). The age distribution in Clay County and the Kansas City metropolitan area is consistent, if not identical to that of the US.



Greetings from Liberty postcard

Boards & Commissions Dinner
February 13, 1999

Question on postcard - "New York is the Big Apple. Chicago is the Windy City. Philadelphia is the City of Brotherly Love. How would you describe Liberty?"

Citizens wrote:

A Hoot! Remember the past; Conquer the present; and look to the Future. Preserve the Historic Square and be alert to the pitfalls of too much growth, too quickly.

A city that cares about its citizens today and tomorrow.

The city of great schools. The city of families!

Liberty - The Jewell of the Midwest.



Forty-two percent of the population in Clay County and the Kansas City metropolitan area is in the 18 to 44 year old age group. The population in the 45 years and older age group is higher for Clay County than Liberty (32% vs. 27%). The median age in Liberty is currently 33.9 years, up slightly from 31.2 years in 1990. By 2003, the median age is expected to increase to 35 years.

In 1990, the average household size in Liberty was 2.85 persons. By 1998, the average household size in Liberty had grown to 2.90 persons per household. This trend is opposite the national trend of steadily decreasing household size. The increase in household size implies a smaller number of housing units is needed to accommodate the population increase. It also implies an increasing number of school aged children per household which has implications for the school district and recreation department of the City.

The average per capita income for Liberty increased by approximately 36% from \$15,702 to \$21,314, between 1990 and 1998. Average per capita income is projected to increase by 20% to almost \$26,000 between 1998 and 2003. Average household income grew by almost 37% from \$44,700 to \$61,500, between 1990 and 1998. Between 1998 and 2003, average household income is projected to increase by another 19.5% to approximately \$73,500.

This data and present trends paint Liberty as a relatively young, moderate-growth community with increasing affluence. The relatively high growth in household formation, increasing family size and increase in available income present desirable opportunities for retail and service growth and the need to increase local employment opportunities.

Liberty's housing stock is predominantly detached single family in nature. Less than 24% of the dwelling units in the City are in attached single-family or multiple-family buildings. Since 1990, the proportion of multiple-family units in the City's housing stock has diminished. More than 68% of the dwelling units in Liberty are owner-occupied. The rate of owner-occupied housing in Liberty is consistent with that of Clay County but is higher than the rate for the metropolitan area (55%). No new apartments have been constructed in Liberty since 1987.

Greetings from Liberty postcard

Boards & Commissions Dinner
February 13, 1999

Question on postcard - "A picture postcard tells a story by the images it presents. What images would you like to see on a picture postcard of Liberty 15 years from now?"

Citizen wrote:

I would like to see activities that embrace and encourage cultural diversity and the celebration of the differences within our community.

Greetings from Liberty postcard

Boards & Commissions Dinner
February 13, 1999

Question on postcard - "Be a futurist. What will Liberty be like in the year 2050?"

Resident wrote:

Another 50 years from now, I predict Liberty will still bear the stamp of good schools, friendly people and citizen involvement that makes it so special at present.



Within Liberty, detached single-family housing ranges from attainable “starter” homes to executive homes and from new construction to “fixer-uppers” and historic properties.

The median home value of Liberty housing increased from \$48,900 to \$75,800, or 55%, between 1980 and 1990. Liberty’s median home value exceeds that of Clay County by about 11%, suggesting that Liberty is becoming a higher-priced location within Clay County.

Economically, Liberty is no longer the trade center for Clay County. However, the City benefits from its proximity to Kansas City and its economic force. Retail sales have been growing in Liberty at an increasing rate for the past fifteen years. Construction activity has increased in volume and value for the past decade and unemployment is low.

A significant contributing factor to Liberty’s economic prosperity is the transportation network. The City is situated at the junctions of I-35 and Missouri Highways 152 and 291, and is approximately one mile north of the intersection of I-35 and I-435, which form a beltway around Kansas City. Liberty enjoys close proximity to the Kansas City International Airport and the City is served by four railroads.

Liberty is a net importer of workers. Between 1980 and 1990, the proportion of the work force imported into Liberty increased from 61% to 69%. About 31% of Liberty’s work force is made up of Liberty residents. Labor force characteristics show similar changes. In 1990, about 67% of Liberty’s labor force worked outside Liberty. This is a 10% increase over the 61% of residents who worked outside Liberty in 1980.



Education attainment in Liberty is higher than average. In 1990, approximately 26% of Liberty residents 25 years of age or older were college graduates or post college graduates and about 88% were high school graduates. This compares to 20% college graduates and 82% high school graduates for Clay County as a whole. This exceeds the national average of 20% and 75%,

Places in the Heart Survey

November 1998 - February 1999

Survey Instructions - Think about Liberty and the places, buildings, roads, landscapes, and views that make it Liberty. Identify those places that have meaning to you and the places that represent the essence of your community.

Top 10 Places in the Heart

1. The Square/ Downtown
2. (tie) William Jewell College; Martha Lafite Thompson Nature Sanctuary; Parks
3. Community Center/ Middle School
4. Liberty Public Schools
5. Liberty Hospital
6. Own house/Neighborhood
7. (tie) Greenways; Open space/ Countryside; Historic homes/ Older neighborhoods/ Historic Districts
8. Hallmark
9. Heartland Meadows
- 10.(tie) Churches; Highway access; Earnest Shepherd Youth Center

Temperature Taking Exercise

January 9, 1999

What do you like or appreciate about Liberty?

Residents answered:

small town feel; college town; schools; churches; the Square; symphony; theatre; movie theatres; wealth of things to do when you’re not working; greenness/ greenspace; limestone walls; sidewalks; attention to the environment; the hospital; diversity of housing; older homes; sense of history; historic districts; hometown newspapers; knowing people in stores where you do business; community pride; unique town; a regional leader/ progressive; proximity to Kansas City; opportunity to make change; diversity of people and interests; children.

respectively. Approximately 29% of Liberty residents are executives, managers or professionals.

The education system in Liberty is comprised of the public school system, one parochial elementary school, and a liberal arts college.

Liberty Public School District #53 is fully certified by the Missouri Department of Elementary and Secondary Education. In addition, the high school is fully accredited by the North Central Association of Colleges and Secondary Schools. The district offers a wide range of services for students. A seven-member Board of Education sets policy for the district. More than 6,300 students are enrolled in the public schools.



William Jewell College, founded in 1849, is a coeducational liberal arts school, with a current enrollment of 1,735 students. This independent private institution is affiliated with the Missouri Baptist Convention and is fully accredited by the North Central Association of Colleges and Secondary Schools, and the Association of American Universities and Colleges.



The City's water supply comes from 10 water wells in the southern portion of the city. The majority of the City's sewage collection and treatment system is connected with the Kansas City, Missouri sewage system for treatment. The City also owns the Rush Creek treatment plant which serves the northern portion of the community.

Electricity is supplied by Missouri Public Service Company and Union Electric. Southwestern Bell Telephone Company is the major supplier of telephone service in Liberty. Missouri Gas Energy Company provides natural gas service in Liberty. Suburban Propane provides gas service in the rural areas. Time Warner Cable delivers cable service.

Community Survey in Liberty Citizen newsletter

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizens wrote:

Friendly people - not necessarily the same age or financial status - but people that care about each other - they don't have to be the same religion or same race.

Young and old people living side by side in an affordable community. . . . where one generation can learn the wisdom of the previous generation and pass that wisdom on to the next generation. In a great neighborhood, neighbors know neighbors and meet one another as they walk to the grocery, bookstore, church or work. They care about one another.

Homes that are affordable to the working class of people - affordable as in able to make house payments and still live, not just exist from payday to payday.

Survey result:

Less than half of the respondents (44%) felt that as Liberty has grown over the years, the quality of life has steadily improved while 30% neither agreed nor disagreed, and 25% felt Liberty's quality of life had not been improving.

Liberty is served by the Mid-Continent Public Library System, an organization with 26 local libraries, governed by a 12-member board. The entire system contains more than 2,000,000 volumes, which are available to all library users via a communication and daily delivery system.

Liberty Hospital, a 200+ bed facility, provides out-patient surgery, physical and respiratory therapy, and nuclear medicine among its many services. The Hospital is governed by a board, elected from the local hospital district. The County health clinic and numerous private health centers are located in Liberty.



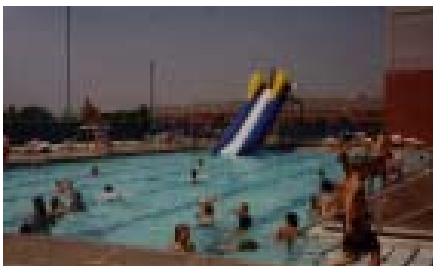
health centers are located in Liberty.



Recreational opportunities abound in Liberty. The City's Parks and Recreation Department manages over 300 acres of park land, including

six developed parks and the Liberty Sports Field Complex. In addition, the City leases from the Missouri Department of Conservation the Walnut Woods Natural History Area adjacent Stocksdale Park. The City's recreation facilities feature over four miles of multi-use trails, seven lighted sports fields, six picnic shelters, ten lighted tennis courts, play areas, a nature trail, a fitness trail, an amphitheater, and two wading pools. Additionally, the Parks and Recreation Department offers a variety of recreation programs on a seasonal basis for all ages, including exercise, sports, arts and crafts, musical entertainment, special interest classes, and special events.

The Liberty Community Center provides a number of recreation facilities, including indoor and outdoor



swimming pools, a 700 seat theater, physical

Places in the Heart Survey

November 1998 - February 1999

Citizens describing what makes Liberty - Liberty:

Downtown neighborhoods - variety of housing types, styles, price ranges, etc., narrow streets, alleys and sidewalks.

Liberty Hospital - great care -- well run -- compassionate care - community partner.

Liberty Public Schools - A star in our crown.

The two focal features of Liberty are hilltop markers - the Junior High School and William Jewell College. Their positions on opposing hills give the impression they are "looking over" the town.



The Martha Lafite Thompson Nature Sanctuary provides a number of hiking trails and an interpretive center. Also located in Liberty are the Earnest Shepherd Youth Center and Claycrest Golf Club, a public course.

Liberty has a rich and colorful history. Several historic buildings in the City attract thousands of visitors annually. The City has established five historic districts in and around the Liberty Square to help preserve vital historic resources for future generations. These historic resources distinguish Liberty from other communities in the Kansas City region.

Places in the Heart Survey

November 1998 - February 1999

Citizens describing what makes Liberty - Liberty:

We have a fondness for open park areas and anything to do with nature.

Greenways - The things both nature and humans need.

Martha Lafite Thompson Nature Sanctuary - A place for people and nature.



Ecological Profile

Late in the 1998 growing season, an ecological inventory was conducted throughout Liberty. This inventory determined the location and health of different ecological systems. The results of the survey are described in Appendix A and shown on the Land Cover Types Map.

Most of Liberty's natural landscape has been modified by agricultural activities for crop and pasture and by land development. The most typical natural system in Liberty is in low health with native wetlands, savannas, woodlands, and prairies now absent or significantly degraded. In these settings, systematic replanting of former vegetation and management are necessary to restore these landscapes.

Despite the degraded ecological condition in Liberty, opportunities for restoration and management exist. Surface water management techniques can become a key component of the restoration effort. Establishing buffers along streams and drainage-ways can provide surface water management benefits, as well as habitat for flora and fauna.

Few historical landscape features, such as prairies, savannas and wetlands remain. Only a few upland areas with any remnant native vegetation are present, but they can be used as reference points for the design of restoration and management projects. In contrast, the various riparian areas, particularly along the Claycrest golf course, have immense restoration potential. Areas of high natural quality in the Liberty area include:

- forest/savanna remnants located along the bluffs of the Missouri River;
- barrens, savanna, and dry prairie located near the cement plant along Church Road; and
- savanna and riparian systems associated with Claycrest golf course.



Ecology Vocabulary

Ecology - The set of relationships existing between organisms and their environment.

Fauna - Animal life.

Flora - Plant life.

Habitat - The place or type of site where a plant or animal naturally or normally lives and grows.

Prairie - An extensive, grassy, level or rolling tract of land.

Riparian - Relating to a habitat on the banks of streams, rivers, and lakes.

Savanna - A grassy plain with scattered tree growth.



Land Cover Types are different uses, including natural



The Ecological Profile identifies:

- the need and potential for conducting successful ecological system restoration projects;
- noxious weeds that are present and the seriousness of the threat they represent to future restoration programs;
- the location and condition of remnant natural areas that can serve as restoration models;
- sources for collection of native plant seeds for restoration projects;
- natural areas that should be addressed in development plans; and
- opportunities for the integration of native plants and restored natural systems into landscaping plans for new development.



Land Cover Types

The inventory of all habitats in and around Liberty identified several prevailing land cover types which are shown on the Liberty Land Cover Types Map.

Key to Map

1. DEVELOPED LAND

- A. Residential
- B. Industrial/commercial
- C. Recreational
- D. Railroad/road easements
- E. Mowed lawn/ landscaped trees, shrubs

2. AGRICULTURAL LAND

- A. Residence/out buildings
- B. Fields (cropped)
 - 1. Corn
 - 2. Beans
 - 3. Alfalfa
 - 4. Nursery
 - 5. Oats
 - 6. Pasture
 - 7. Other (e.g. sod farm)
- C. Fields (fallowed)
 - 1. Unmowed
 - 2. Mowed
 - 3. Warm season grass plantings/ prairie restoration
- D. Bare Soil

3. FORESTED COMMUNITIES

- A. Fence row (shrub/tree)
- B. Floodplain forest/flat woods
- C. Recently developed forested systems in degraded condition
- D. Historic oak savanna/barrens
- E. Plantation/orchard/nursery
- F. Mesic forest (basswood, elm, oak, ash)

4. WETLANDS

- A. Native grasses/wet prairie remnants
- B. Sedge meadow remnants
- C. Cattail/tall emergent graminoids
- D. Reed canary grass
- E. Swamp (tamarack)
- F. Shrub thicket (Salix/Cornus)

5. OPEN WATER/DRAINAGES

- A. Lake
- B. River
- C. Stream/creek
- D. Spring/seep
- E. Detention/maintained pond
- F. Farm ditch/canal

6. UPLAND PRAIRIE REMNANTS

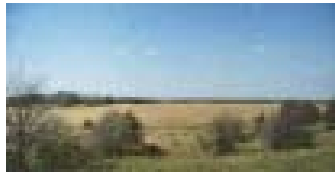
- A. Mesic prairie
- B. Dry prairie

Future Land Use Classifications and Map

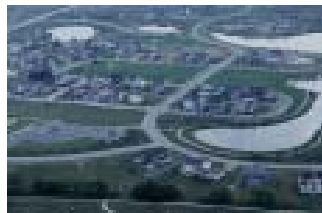
The Future Land Use Map incorporates a number of land uses that are represented by familiar terms, symbols or colors, but the map actually reflects a new approach to land use in Liberty. This approach seeks to create opportunities for a wide range of uses ensuring compatibility through design rather than through physical separation.

Conservation Land Use

describes all of the environmentally sensitive lands in Liberty, including steep slopes, wetlands, woodlands, certain grass lands, wildlife habitats, creeks, and bluffs. These are areas where development would create costly impacts to natural systems, drainage patterns, or the geographic identity of Liberty. Land shown with this designation may be publically or privately held. Conservation Lands should be factored into the overall design of developing areas as they provide natural landscaping, establish buffers, and contribute to the City's overall stormwater management system.



Parks are land set aside specifically for active and passive public recreation. Park land may include storm water management and Conservation Lands.



Storm Water Management Use describes land set aside specifically for storm water management purposes, such as detention and retention basins or constructed wetlands.



Conservation Subdivision Design from *Growing Greener*, Nov. 1997

Rural Development Land Use provides for development in the outlying agricultural areas while maintaining the community's rural character and function. Conservation development practices will be applied in this area.

Low Density Residential Land Use is characterized by the detached single-family residence. Attached single-family and multiple-family buildings could be allowed, but with *low prevailing densities* (0 to 6 dwelling units per acre). This is the predominant land use in Liberty.

Places in the Heart Survey

November 1998 - February 1999

Citizens describing what makes Liberty - Liberty:

We chose to move to Liberty because it was a town not a bedroom for KC. It is that "town" feeling that I hope the city can maintain. It is like the opening song to the show Cheers, "it's nice to go where everybody knows your name," or at least smiles like they would like to. Having green spaces is, to me, a very important part of that.

Industrial park (Heartland Meadows), good location for function and relationship to community - yet user friendly to walkers and bike riders.

Wilshire Pond. I enjoy seeing it every day - it always looks different.



Conservation Development

Conservation development or conservation design clusters homes and businesses on a tract of land so that half (or more) of the land is set aside as open space or farmland. The goal is to permit the same number of homes but maintain the rural character of an area. This approach allows for development while achieving the goals of maintaining open space and rural areas.



Community Survey in Liberty Citizen newsletter

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizen wrote:

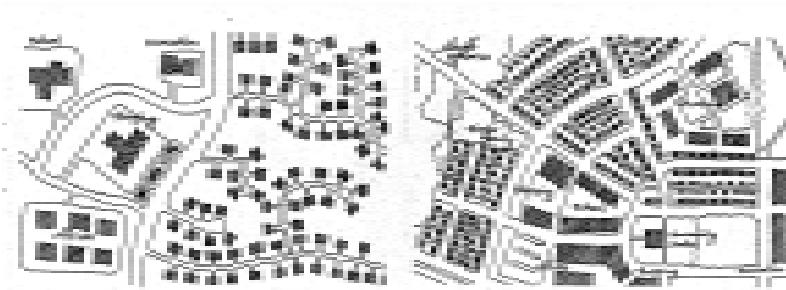
Variety of housing styles. As much of the natural lay of the land preserved. Adequate sized lots with large common areas. Quality construction (not necessarily high price).

High Density Residential Land Use is characterized by predominantly attached single-family and multiple-family building types. Detached single-family homes could be allowed in this land use but at high prevailing densities (7+ dwelling units per acre).

Traditional High Density Residential Land Use allows for a diversity of housing styles (townhomes, small lot single-family homes, apartments) within the context of a traditional neighborhood. The buildings blend in and have the same elements as single-family homes in the neighborhood, e.g. entries on the fronts of buildings, buildings oriented to the street, constructed to the human scale, and greater architectural ornamentation and detail (7+ dwelling units per acre).



Traditional Residential areas incorporate the principles summarized at right and further described in the Liberty Neighborhood Principles (0 to 6 dwelling units per acre). Neighborhoods adjacent to the Historic Liberty Square are examples of this type. They include shorter building setbacks, alleys, a variety of street designs, more public open spaces, and civic uses in prominent locations.



Suburban Development
from *Toward Sustainable Communities* by Mark Roseland

Traditional Neighborhood Design

Mixed-Use designates land suitable for development at higher densities consisting of buildings with retail and/or office uses on the ground floor and offices and/or residential dwellings on the upper floors. Mixed-use developments would be designed and developed according to the Liberty Neighborhood Principles described herein.



The major principles of Traditional Neighborhood Design

All development should be in the form of compact, walkable neighborhoods and/or districts. Such places should have clearly defined centers and edges. The center should include a public space - such as a square, green or an important street intersection - and public buildings - such as a library, church or community center, a transit stop and retail businesses.

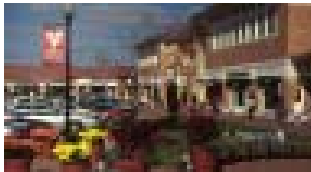
Neighborhoods and districts should be compact (typically no more than one quarter mile from center to edge) and detailed to encourage pedestrian activity without excluding automobiles altogether. Streets should be laid out as an interconnected network (usually in a grid or modified grid pattern), forming coherent blocks where building entrances front the street rather than parking lots. Public transit should connect neighborhoods to each other, and the surrounding region.

A diverse mix of activities (residences, shops, schools, workplaces and parks, etc.) should occur in proximity. Also, a wide spectrum of housing options should enable people of a broad range of incomes, ages, and family types to live within a single neighborhood/ district. Large developments featuring a single use or serving a single market segment should be avoided.

Civic buildings, such as government offices, churches and libraries, should be sited in prominent locations. Open spaces, such as parks, playgrounds, squares, and greenbelts should be provided in convenient locations throughout a neighborhood.

from *The Congress for the New Urbanism*

Commercial Use includes the commercial and retail uses dependent upon the automobile or specifically for the automobile. These uses would not be appropriate for inclusion in mixed-use developments or the Historic Liberty Square. These uses should not encroach into existing residential neighborhoods. Where automobile oriented commercial uses are near residences, the principles of buffering, transitioning, and good site design should be used to reduce their impact.



Business Use includes manufacturing businesses, warehouses, research and development, offices and commercial uses. Commercial uses are permitted in this category, but they are not intended to dominate. The Future Land Use Map does not attempt to predict where or how much land may be developed for commercial uses within Business Use areas. This provides the maximum flexibility for the City and the landowner in determining the future development of strategically located properties in Liberty. Certain locations may be more conducive to retail development such as at major intersections or in areas highly visible from major streets or highways. Also, business or industrial parks need a certain amount of commercial development nearby to serve the needs of employees. Conservation Lands are commonly shown in and around the Business Use areas to provide open space and buffers.



Civic, Institutional Use includes public and private properties that have civic and/or cultural purposes. Examples are government buildings, schools, libraries, hospitals, post offices, museums, community buildings, day care centers, courthouses, and significant landmark buildings.

Commuter Rail Stations show areas with the potential to become transit or bus stops to allow for public transportation.

Gateways are major entry points into Liberty. They provide visitors their first impression of the city. As a result, development in these areas should be of high quality with an attention to detail. Although Gateways are predominately commercial in nature, the Liberty Neighborhood Principles, particularly those applying to creating a sense of community, should be used as a guide. Also, a mixture of land uses could be incorporated within larger, unified developments.

 **Community Survey in Liberty Citizen newsletter**

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizens wrote:

Whatever you personally like- old homes or new homes, big lawns or small lawns . . .

I would like to see Liberty more pedestrian friendly. There are not sidewalks along 152 and 291 highways.

 **Places in the Heart Survey**

November 1998 - February 1999

Citizen comment:

Liberty is fragmented by highway and rail systems. These physical barriers need ways to readily and safely cross by both vehicles, pedestrian, bikers, etc.

Citizens describing what makes Liberty - Liberty:

Love the view; both coming home, North, on 291 looking toward a town that is its own place; close to the city but not part of the city; feels more like a small town, safe and friendly and: looking south, the flood plain and river, always there but never the same.

The open spaces surrounding developed Liberty give us context, tie to natural world, buffer, and identity.



Restored Wetlands

Key Recommendations

1. **Establish physical and psychological connections between north and south Liberty reducing the impact of Interstate-35 and M-291 Highway as a barrier.**

Some additional physical pedestrian linkage, other than the Missouri Highway 291 bridge across I-35, should be provided to allow access to and from neighborhoods north of the Interstate and to other multi-use trails and points of interest in Liberty. A viaduct under the highway may be a viable alternative. As Liberty grows to the north additional neighborhoods should be established based on the Liberty Neighborhood Principles.

2. **Establish a rural development land use on the east side of the City.** Due to the difficulties associated with extending public sewer to the eastern part of the city, this area is most likely to remain rural in character for the near future. To allow for development, conservation development principles should be used to retain this area's agricultural use and appearance. Maintaining the rural character of this area will also help set Liberty apart from other communities as a city with urban and rural areas.

3. **Define storm water management facilities as a land use.** Storm water management facilities are expected to be part of development in certain areas of Liberty.

These facilities may be public or private depending on their location in parkland or on private property. Storm water management facilities can be located adjacent to, but not inside, the conservation areas identified on the Future Land Use Map. The conservation areas will contribute to the natural storm water management system through conserving open space and restoring prairies and wetlands.

4. **Maintain the Historic Liberty Square as the central core and community gathering space for Liberty while establishing smaller neighborhood focal points throughout the City.** Attention to maintaining the Square and the surrounding business district as the community's primary focal point should continue. Future neighborhoods will need their own focal points like the Square, but on a much smaller scale for neighborhood level social, civic and economic purposes. Additional focal points in the City should not be viewed as competition for the Square because of the Square's

Community Survey in Liberty Citizen newsletter

November 1998

Survey result:

82% would like Liberty to have a well-defined edge including farmland, woodland, and wildlife areas permanently protected from development.

Temperature Taking Exercise

January 9, 1999

What is a need you see in Liberty and what solution do you have?

Residents answered:

tree planting program; Kearney/ Kansas City light rail; improve M-291 and M-152 for pedestrians/bicyclists; recreate a hub with neighborhoods spoking out; business satellites near homes; mixed use areas; complete a natural resource inventory; a beautification committee; minimum maintenance requirements for housing; work with surrounding communities & entities; wide open spaces available within safe distances from homes; educate & involve people in decision making; mix of housing; employment for average families; change collector street standards - no more backs of houses on streets; build sidewalks wide enough to accommodate 2 people side-by-side; develop an economic development plan coordinated with the land use plan.

distinct function as the core and centerpiece for the greater community. There are a number of different types of neighborhood focal points such as: commercial centers, common postal centers, and small parks.

5. **Provide opportunities for commuter rail and other forms of public transportation in Liberty.**

Neighborhoods and commercial areas should be designed and developed around likely rail station sites. These proposed commuter stations could be stops for express or fixed-route bus service, as well as for future commuter rail service. Land uses in the vicinity of the proposed commuter stations should be designed with higher density housing and mixed uses to encourage opportunities and options for future transit service. This type of development would contribute to the feasibility of such transit service in the future. However, if transit does not become a reality, these neighborhoods are pedestrian friendly and an efficient use of land.

6. **Promote the redevelopment of the Liberty Triangle.**

Located between Interstate 35, Missouri Highway 152 and Missouri Highway 291, the Liberty Triangle occupies a prominent location at one of Liberty's gateways and is designated as a Gateway on the Future Land Use Map. Currently an eclectic collection of underused properties and obsolete parcels, the Triangle presents tremendous opportunity and challenge. Development should occur under a unified development plan, if not under unified control because piecemeal development will not ensure its highest and best use for the community. The Future Land Use Map designates the Triangle as a commercial area, but a mixture of land uses could be incorporated as part of an overall plan.

7. **Establish a variety of land uses throughout the South Liberty Roadway corridor.** The community has invested a tremendous amount of resources in planning and designing this future transportation route. The South Liberty Roadway will have a significant impact not only on Liberty's transportation system, but on future growth. The large Mixed Use area provides the opportunity to support higher densities, capitalize on the amount of traffic using the road, and provide a community focal point for the southern part of the city. The Business Use area provides the opportunity to take advantage of good highway access and generate employment areas supporting neighborhoods to the south. The variety of land uses shown in this area takes advantage of the



**Community Survey
in Liberty Citizen
newsletter**

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizen wrote:

A rich, convenient and varied assortment of housing, parks, trails, schools, churches and businesses. Walking and bicycling are convenient alternative to driving, but good, adequate roads are available as needed. Parks are themselves varied, some areas as inviting gathering spots, some developed with ballfields and exercise trails, other parts kept wild with nothing more than a path by a creek. Shopping areas are interesting areas to browse, not just drive through, and accessible by foot and bicycle, not just cars.



**Places in the Heart
Survey**

November 1998 - February, 1999

Citizen comment:

Triangle is important because of it's commercial development potential.



**Temperature
Taking Exercise**

January 9, 1999

What worries you about Liberty?

Residents answered:

stormwater management; flood control; losing the good things; not enough affordable housing; deteriorating older homes; community divided by M-291; lack of investment in the community (participation); lack of sidewalks - especially on M-291, M-152, and Kings Highway; traffic - M-152, M-291 & I-35; impact of growth on city service & school district (tax base).

regional benefits of connecting M-291 Highway and Interstate 35. New neighborhoods in this area should incorporate the Liberty Neighborhood Principles described herein.

In the past, Liberty has seen major roadways become barriers dividing the city and sources of congestion due, in part, to commercial strip development. To balance the competing goals of moving traffic and serving the needs of businesses and residents, the commercial land uses on the South Liberty Roadway are consolidated into a large Mixed Use node shown on the Future Land Use Map. This allows traffic to travel along the rest of the roadway with traffic slowing only at one point. The roadway should be designed to meet these multiple purposes.

8. **Expand the City's multi-use trail system.** A wider trail network provides access and connections to many civic, recreational and shopping districts along with neighborhoods in Liberty. An extensive off-street trail system is to be developed along all of the major drainage ways and their tributaries in the City.
9. **Protect natural drainage ways from development.** As discussed in the Ecological Context, encroaching development on unstable slopes and soils has resulted in widespread erosion and loss of natural habitat in the City. Such erosion destroys water quality in Liberty's streams and causes property damage. The Future Land Use Plan places drainage ways, along with other sensitive environmental areas and landscape features, in a new Conservation Land Use category and sets aside all of the drainage ways in the City from development.
10. **Encourage mixed-use development in core areas of new neighborhoods.** The Future Land Use Plan encourages mixed-use development in core areas, at future transit stops and in other selected locations. These mixed-use areas are distinguished by higher residential densities than their surrounding neighborhoods, by mixed-use buildings (retail on the ground floor and offices and/or residences on upper floors), detached single family homes on smaller lots, and a higher proportion of attached single family residences. Mixed use areas should be developed with particular attention to the Liberty Neighborhood Principles.



Temperature Taking Exercise

January 9, 1999

*What worries you about Liberty?
(Continued)*

Residents answered:

lack of public transportation; extending infrastructure to rural - newly annexed areas; unchecked growth/too much residential/ not enough balance between business/industry & residential; the "Quick Fix"; environmental impact of growth; not being a metro-player (think globally); appearance at entries to City; no tree program; keeping people's hearts where they live - not where they work; multiple high schools; lack of diversity - ethnic, racial, generational; ability to pay for growth; development of the Liberty Triangle; and are we taking care of what we have?

Community Survey in Liberty Citizen newsletter

November 1998

Survey result:

60% would like to be able to walk or bicycle to a grocery store near their home.

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizens wrote:

Well kept houses, trees along the street, sidewalks, good bicycling conditions, shopping nearby - preferably not in strip malls. Parks nearby, churches.

Good well-planned green belts.

Citizen comment:

Need a larger job base.

11. **Encourage sustainable landscaping practices.** The introduction of native landscaping into new and existing developments in Liberty will improve storm water management and water quality, while also providing for green space amid development. The Hallmark distribution center property on Highway 33 could be a prairie restoration demonstration project. Its vast and varied topography would provide a striking opportunity to demonstrate the ecological, hydrological, and economic benefits of using indigenous landscaping. As Conservation Lands are woven into Business Land Uses, these areas are good candidates to take advantage of natural landscaping practices. The City can take advantage of these techniques at Stocksdale Park and at the new Sportsfield Complex. Efforts to restore native landscapes can be used for educational purposes in partnership with the Liberty School District, Missouri Department of Conservation, Martha Lafite Thompson Nature Sanctuary, and William Jewell College. Private property owners can help establish these natural, green areas as well.



12. **Increase the diversity of parks and open spaces.** Many parks and open spaces are shown on the Future Land Use Map. Green spaces within a 5 minute walk of all residents in a neighborhood is a goal of this plan. Parks and open spaces can also provide improved physical and visual access to natural features, such as streams, bluffs and woodlands.

13. **Provide ample opportunities for economic development and employment in Liberty.** Two distinct areas for industrial development are identified on the Future Land Use Map, where manufacturing, warehouse, research and development, and office uses should be concentrated to capitalize on the visibility and access to railroads, highways and the Interstate. These areas are important for providing a tax base and creating a full-service city where people can live and work.

14. **Gateways to Liberty should be designed to create a sense of arrival and distinguish Liberty from other communities.** Three major entry points or gateways along Interstate 35 are shown on the Future Land Use Map. One is at the Pleasant Valley/future South Liberty Roadway interchange. Another is the M-152 interchange and the third is the intersection of I-35 and 69 Highway. These gateways are shown as Commercial Use but opportunities for mixed use developments may exist as part of a larger design. Development of the Gateways should build on Liberty's sense of community using the Liberty Neighborhood Principles. In addition to private investment, the community should also invest in beautification projects in these areas.

Liberty Neighborhood Principles

The Liberty Neighborhood Principles describe community expectations for new neighborhoods and the improvement and maintenance of existing neighborhoods. The principles also apply to greater Liberty as a whole including commercial and residential development. They provide guidance for how a mixture of land uses can work together to create community. Up to now, the emphasis has been on separating land uses with the hope that buffers and distance would create the desired results. In contrast, these Liberty Neighborhood Principles outline the desired results first -- healthy neighborhoods.

Principle One

Liberty should be a full-service community for a diverse population consisting of neighborhoods designed for human interaction.

GUIDELINES:

1. All development should be designed using human scale dimensions as opposed to those of the automobile.
2. Semi-public and private spaces should be provided. Semi-private areas, such as porches and front yards create a transitional zone between the public domain of the street and the private domain of the house or business.
3. Liberty's neighborhoods should be encouraged to incorporate central gathering places, such as cafes, plazas, community gardens, and parks into their design in order to provide a common space for formal and chance meetings between neighbors.
4. A range of housing types and sizes to accommodate households of all ages and sizes should be provided in each Liberty neighborhood. A mix of housing types within a neighborhood creates visual and economic variety as well as opportunities for a more diverse population.
5. The walking distance between home and different neighborhood facilities should be a fundamental factor in the design and layout of neighborhoods.



Places in the Heart Survey

November 1998 - February 1999

Citizens describing what makes Liberty - Liberty:

Liberty is made up of neighborhoods.

The Square represents all that I value. The "essence" of community, i.e. human scale, access, landscaping and textures such as paving, etc.



Human Scale

Maximum range for detecting a human being with the unaided eye: 4000 ft.

Normal distance for recognition of an individual: 80 ft.

Normal distance for reading a facial expression: 40 ft.

Sense of direct personal relations occurs at: 3 - 10 ft.

Outdoor dimension that seems intimate: 40 ft.

Maximum length for the short side of a defined outdoor space: 450 ft.

From Site Planning by Kevin Lynch and Gary Hack



Principle Two

All existing and future neighborhoods should respect and complement the natural landscape by preserving and enhancing ecological features.

GUIDELINES:

1. Public and private development should be encouraged to use indigenous vegetation as a landscaping feature.
2. Storm water management techniques will be required that utilize ecological systems and the open space network to improve the quality of creeks, streams and tributaries of the Missouri River.
3. Development should only occur on land most suitable for development (avoiding steep slopes, poor soils, floodplains, and Conservation Lands) and in a manner which does not significantly impact the ecological system.
4. Development should be limited in areas which can detrimentally impact the City's water supply.

Principle Three

All existing and future neighborhoods should be designed to facilitate the community's walking and bicycling environment using pedestrian dimensions and distances, compact form and layout, connections and streetscape characteristics that invite and encourage walking and biking.

GUIDELINES:

1. Neighborhoods should be designed so that Liberty residents have the opportunity to walk or bike from their homes to school, recreation, shopping, places of employment, civic facilities, and transit opportunities.
2. Neighborhoods should be designed by walking distances that are comfortable for the average person. A quarter mile walk is the optimum walking distance between home and the core of the neighborhood, e.g. a park, square, civic building, or commercial area.

Community Survey in Liberty Citizen newsletter

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizens wrote:

Strong support of ecological factors necessary for a healthy NATURAL environment.

A walking and bicycle-safe place where my kids and I can walk or ride to school and chores through tree-lined streets. Air quality is great and stress is low from lessened traffic congestion. We meet our neighbors along our routes and walk or ride with them awhile.

Survey result:

60% of respondents felt that neighborhoods could be redesigned to increase walking and bicycling.

Places in the Heart Survey

November 1998 - February 1999

Citizen describing what makes Liberty - Liberty:

Open country - room to make more of what is best, and still have open country.



3. Neighborhoods should include a network of interconnected pedestrian walkways.
4. Liberty neighborhoods should be designed to incorporate higher density uses near the center, while encouraging lower density uses toward the edge.
5. The edge of neighborhoods should be defined by low density uses, open spaces, parks, boulevards, or other natural features.

6. Neighborhood cores should be designed with public transportation options in mind to help facilitate such service in the future.



7. Liberty neighborhoods should be designed with an emphasis on creating a continuous and pleasurable walking experience through the utilization of trees and landscaping, building and parking lot design, and well-defined walkways.



8. Sidewalk widths should be increased in areas designed for significant pedestrian traffic.
9. Sidewalks should be designed to include a tree-lined planting strip between the sidewalk and the street curb to provide an attractive canopy and create a safer walking environment.
10. On-street parking should also be encouraged because it creates a safer environment for pedestrians on the sidewalk, decreases the need for large parking lots, and tends to reduce traffic speeds.
11. Street lighting and other street furniture, e.g. benches, planters, trash receptacles, should be used to increase the positive experience of walking in Liberty neighborhoods.
12. Enhancing and accommodating the City's bicycle network should be encouraged in order to facilitate intra-city (on-street bike lanes and multi-use trails) and inter-city (major highways, railroads or utility transmission corridors) bicycle traffic.
13. Multi-use (walking and biking) trails should be used to make Liberty's parks and open spaces accessible to public use or public view.



**Back to the Future,
Postcards to the
Liberty of the
future**

Fall Festival
September 26, 1998

Question on postcard - "If you were sending a postcard in the year 2050, how would you describe your ideal Liberty, Missouri? What would be the same? What would be different? How would it look?"

Citizen wrote:

Hike and bike trail system - interconnecting parks, William Jewell College, schools, etc.



**Community Survey
in Liberty Citizen
newsletter**

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizens wrote:

A neighborhood where people can socialize with one another outside their homes and feel safe. It's a place with natural woodlands, walking and cycling trails, and outdoor natural settings for recreation with the family.

Sidewalks, FRONT PORCHES



Principle Four

All existing and future neighborhoods in Liberty should be designed with attention to the creation and maintenance of open spaces to serve as areas of recreation, agriculture and ecological conservation.

GUIDELINES:

1. Well defined rear yards should be encouraged in residential areas. Areas with exceptionally small rear yards should be located adjacent to parks or central gathering places in order to provide access to open space.
2. Neighborhood design should include the creation of central gathering places which provide open green spaces for community gatherings and neighborhood interaction. Such gathering places should be integrated into the City's bicycle and pedestrian network.
3. Neighborhood design should include the creation and dedication of public open spaces which provide opportunities for passive and active recreation. The size and design of the public open spaces should be commensurate with the expected population of a given area.
4. Open spaces should be integrated into the City's bicycle and pedestrian network.
5. Open spaces in which a number of active recreation facilities are concentrated should be located on the edges of neighborhoods in order to be accessible to a wider population.
6. Open spaces should define the edge of Liberty and, where possible, individual neighborhoods. Peripheral open spaces create a sense of exit and entry and enhance the sense of place by making Liberty distinguishable from other cities. Conservation or agricultural uses are appropriate as open spaces on the periphery.



Places in the Heart Survey

November 1998 - February, 1999

Citizen describing what makes Liberty - Liberty:

Aaah! Open Space!



Principle Five

Liberty should continue to maintain and preserve the Historic Square as the City center in addition to encouraging smaller neighborhood level centers of activity and commerce.

GUIDELINES:

1. The Historic Liberty Square and surrounding area should be preserved and enhanced as the City center, serving as the stage for community-wide events and the civic and cultural focus of the community.
2. Each neighborhood in Liberty should be designed with a central core area that serves as a gathering place which may contain commercial, residential, and civic buildings, a courtyard, plaza, park or simply open space.
3. To preserve the integrity of the Historic Square and surrounding neighborhoods, further utilization of properties on the Square and in nearby commercial areas is encouraged, but expansion into residential areas is discouraged.



Back to the Future, Postcards to the Liberty of the future

Fall Festival
September 26, 1998

Question on postcard - "If you were sending a postcard in the year 2050, how would you describe your ideal Liberty, Missouri? What would be the same? What would be different? How would it look?"

Citizen wrote:

It's so great to see the same small town. Happily we could walk the streets and enjoy the Square.

Greetings from Liberty postcard

Boards & Commissions Dinner
February 13, 1999

Question on postcard - "Be a futurist. What will Liberty be like in the year 2050?"

Citizen wrote:

My hopes for the future - more small neighborhood parks and wading pools and sidewalks for safe walking.

Places in the Heart Survey

November 1998 - February 1999

Citizen describing what makes Liberty - Liberty:

Liberty Square - The "heart" of Liberty. It is Liberty -- friends and family gather -- unique businesses surround it -- the greatest sense of place in Liberty.



Principle Six

Streets should be designed such that the motor vehicle, bicycle and pedestrian can all function and thrive in a safe, efficient, and integrated environment.

GUIDELINES:

1. The City street network should be designed to accommodate many forms of transportation, including pedestrian, bicycle, public transportation, public safety vehicles, private automobiles and delivery vehicles.
2. The City street network should be designed with an emphasis on connectedness by enhancing and encouraging access within and between neighborhoods. The use of cul-de-sacs, dead ends, and limited access subdivisions and development should be avoided.
3. Streets should be designed such that in addition to facilitating traffic, they convey a positive image through:
 - streets tailored to their function
 - street furniture and details
 - buildings closer to the street
 - pedestrian amenities
 - street trees
 - de-emphasized parking lots
 - straight-back curbs for pedestrian safety.
4. A dense network of streets should be provided to permit multiple, alternate routes, a variety of street sizes, and to encourage a compact neighborhood form.
5. Alleys should be considered in higher density areas in order to reduce the need to locate driveways and garages along the street and also to provide access to off-street parking in commercial and mixed-use areas.
6. Streets should be tailored to the automobile and pedestrian traffic volumes associated with the land uses along the street, resulting in a variety of street widths, pavement textures, sidewalk locations and building locations.



Back to the Future, Postcards to the Liberty of the future

Fall Festival
September 26, 1998

Question on postcard - "If you were sending a postcard in the year 2050, how would you describe your ideal Liberty, Missouri? What would be the same? What would be different? How would it look?"

Citizen wrote:

While I hope you continue to grow and prosper, I also hope you stay the course of what has made you the great community you are. Do not settle for just anything. Maintain quality as your hallmark. Ensure your residents can find what they need just by staying at home: quality schools, service businesses, recreational and job opportunities. And always strive for that sense of community by bringing people together!

I hope there are still rural areas and I hope the urban areas are a mix of places to live, work, and play.



Principle Seven

Liberty’s neighborhoods should be developed and built with the intent to create unique places of enduring quality with variety and pattern.

GUIDELINES:

1. Neighborhoods should have a distinctive unity where all buildings share a thematic character. All buildings—commercial and residential—should share basic design elements which complement each other—a design vocabulary. Such guidelines should not be used to create monotonous repetitive designs or restrict creativity, rather function as a palette from which to choose.
2. A rich architectural legacy exists in Liberty’s historic neighborhoods and provides many cues for new construction. These examples should be used as inspiration for new development throughout Liberty to help distinguish Liberty from other communities in the region.



Greetings from Liberty postcard

Boards & Commissions Dinner
February 13, 1999

Question on postcard - “Be a futurist. What will Liberty be like in the year 2050?”

Residents wrote:

Liberty should continue to promote the historical aspects of this beautiful city.

The historical aspect retains the flavor or ambience of Liberty.



Places in the Heart Survey

November 1998 - February 1999

Citizen describing what makes Liberty - Liberty:

Franklin and Kansas Streets - homes with warmth and personality.

Principle Eight

A mix of land uses and housing types contributes to a more balanced, self-sufficient city.

GUIDELINES:

1. Mixed-use developments should be encouraged as they provide a central location within neighborhoods for a blend of commercial, office and residential uses which supports greater community interaction through the creation of local opportunities to shop, work and meet.



Community Survey in Liberty Citizen newsletter

November 1998

Survey result:

When asked if they would prefer to live in neighborhoods designed like the new subdivisions or like the neighborhoods downtown, 39% preferred downtown while 32% preferred subdivisions.

2. Housing above ground level retail uses is strongly encouraged in neighborhood core areas, the Historic Liberty Square, and along transit corridors.
3. In neighborhoods and mixed-use centers where parking structures may be necessary, ground level retail uses should be encouraged in order to create an interesting and positive streetscape.
4. A mix of housing types and price ranges should be provided throughout neighborhoods. Attainable housing should be dispersed throughout neighborhoods and across Liberty.



5. Zoning district boundaries should run along the rear yards of parcels rather than down the middle of the street in order to allow matching land uses on both sides of a given street which will encourage compatible streetscapes.
6. Large, single-purpose big box developments should be located along arterial highways in Commercial or Business areas.



Community Survey in Liberty Citizen newsletter

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizen wrote:

I wish we had more shopping here so we don't "have" to go other places to shop, e.g. a department store.



Places in the Heart Survey

November 1998 - February 1999

Citizen describing what makes Liberty - Liberty:

Ferrellgas - Perfect example of offices built in harmony with the ambiance of Liberty.

Heartland Meadows - business looking to the future.

Employment opportunities here in town.

Established community, traditional residential designs, trees, sidewalks, hidden garages.

Limestone walls.

Liberty Hospital - quality healthcare in our community - not outside of it.

Seaport - excellent mix of office/residential

Principle Nine

The citizens of Liberty view the health of their natural environment, the strength of their community, the security of their economy, and the fiscal stability of their local government as interdependent.

GUIDELINES:

1. Regulations and requirements consistent with sustainable development practices should be adopted. This type of development focuses on reducing and minimizing erosion, diversifying and improving the inventory of local flora and fauna, and conserving natural resources in the construction process.

2. Economic development strategies should be pursued that encourage a diversified local economy built upon Liberty's advantages, resources and unique character.
3. Land use decisions should promote the conservation and restoration of Liberty's ecological features.
4. Opportunities should be created for full citizen and business participation in the natural resource, environmental, and economic decisions that affect them.
5. Development in the southeastern part of the city should take into consideration the city's water well-field and the dangers chemicals, hazardous materials, or other contaminants may have on the community's water supply.



Principle Ten

Liberty is committed to maintaining and enhancing its unique character and offering a high quality of life to its citizens.

GUIDELINES:

1. In order to preserve quality neighborhoods and protect property values, enforcement and incentive programs preventing property deterioration should be pursued.
2. The community's commitment to preserving its historic structures, neighborhoods and landscapes should be continued.
3. Efforts to maintain and preserve the Square and its surroundings should be continued as the Square represents Liberty.
4. Infrastructure expenditures should be considered investments in Liberty's neighborhoods which return value to the City. Street and utility rehabilitation and maintenance projects often stimulate property owners to make improvements as well.



**Community Survey
in Liberty Citizen
newsletter**

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizen wrote:

When the city rebuilds or makes changes they also add trees and shrubs to beautify.

Principle Eleven

(Re)development of vacant and under utilized parcels in the City should be encouraged.

GUIDELINES:

1. The Liberty Neighborhood Principles should be applied, as much as possible, to all in-fill or redevelopment opportunities.
2. Every proposed in-fill or redevelopment opportunity should be evaluated on its ability to contribute to the form and function of its respective neighborhood.
3. Open space should be considered a legitimate use for in-fill or redevelopment opportunities.

Principle Twelve

Future growth should reflect Liberty's commitment to the efficient use of land and resources and the City's desire to be a regional partner.

GUIDELINES:

1. The City should develop and formalize an intergovernmental agreement with Clay County concerning development of unincorporated land beyond Liberty's boundaries. Land use decisions outside Liberty's boundaries eventually affect municipal services and the quality of life experienced by all Liberty residents. Such an agreement should address land uses and the decisions affecting land use changes, sewer facilities, transportation improvements, and storm water management.
2. The City and the Liberty School District should cooperate on mutual community interests such as: school locations, parks & recreation facilities and programs, and transportation systems (automobile, bicycle, and pedestrian options).
3. Future development should be contiguous to existing developed areas in Liberty.
4. Development should be encouraged to occur in those areas of the community where municipal services are readily available or can most easily be extended.



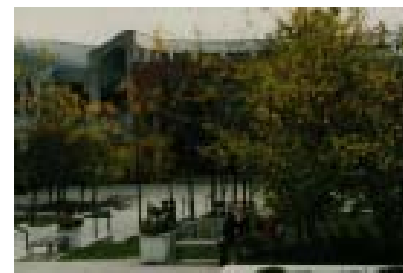
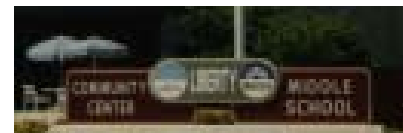
1996 Capital Needs Survey - Public Opinion Survey (random sample of 500 voters)

Survey results:

81% thought the City should continue to link parks and neighborhoods through greenways and bike trails.

67% agreed that the City should build capital projects so as to preserve historic areas.

Respondents favored bikeways, reconstructing older neighborhoods, a ballfield complex, a downtown parking lot, new roadways, new I-35 interchanges, and storm drainage improvements, in that order.



5. In those areas where gravity flow sewers are not presently available, any new development should be discouraged.
6. The cost of public infrastructure necessitated by new development should be assessed to that development
7. Future development and expansion of the City's boundaries should only occur in areas where public utilities can be economically extended.
8. The Liberty Neighborhood Principles should apply to all new territories added to the City in the future.
9. The City should formalize intergovernmental agreements with neighboring municipalities concerning annexations in order to more effectively plan for infrastructure, transportation, civic, educational and cultural investments.

Implementation Strategies

The Land Use Plan is the collective vision of what the community wants to achieve or become in the future. Its full effect is realized only through the application of the codes and ordinances, rules and regulations, policies and programs that the City adopts and enforces on a daily basis. Thus, if the Comprehensive Plan is the blueprint, the implementation strategies are the tools and materials needed to make the blueprint a reality.

In many instances, the recommendations of this Future Land Use Plan are at odds or are simply not addressed through current zoning, subdivision, and other land use and development regulations in Liberty. The current zoning and subdivision regulations, in particular, institutionalize the policies and approaches applied to site planning and land use decisions in the city that create the kinds of neighborhoods, developments and public realm citizens disfavored in the Image Preference Survey. Thus, consistency between the Comprehensive Plan and the City's zoning, subdivision and other land use regulations is imperative to achieve the consensus vision for Liberty.

The zoning and subdivision ordinance revisions will require minor tinkering with some regulations and complete dismantling or overhauling of others. Thus, a piecemeal approach would create disconnection and inconsistencies among the regulations in the zoning and subdivision ordinances and lead to unintended or undesirable results. A comprehensive approach proceeding from the most general to the most specific is recommended.

However, the City can initiate some action steps without waiting to complete revising the land use and development codes and ordinances. The amount of time needed to complete each of the action steps described below varies. More than one action step can be undertaken simultaneously.

The Right Tools for the Job

March 18, 1999

Citizens were given over 50 "tools" or implementation strategies from which to choose. The following tools were the most popular with participants:

1. Wetland/Watershed Protection
2. Natural Landscape Creation (from lawns to prairies)
3. Conservation Subdivision Design
4. (3 way tie) Commercial Design Guidelines; Land Saver Design Patterns; Pedestrian Design in Commercial Areas
5. (4 way tie) Traditional Neighborhood Design; Traffic Calming Strategies; Grass-lined Stormwater Channels; Allowing for Third Places (third places are corner grocery stores, sidewalk cafes, plazas, and other places that promote neighbors knowing neighbors)
6. (3 way tie) Crime Prevention Through Environmental Design; Pedestrian Friendly Zoning; Mixed Use Development
7. (4 way tie) Plan Now for Transit; Community Tree Program; Become a "Bicycle Friendly Community"; Multifamily Housing that Doesn't Look Like Apartment Buildings.

The Interim

Dealing with land use and development decisions until the Zoning Ordinance and Subdivision Regulations are fully revised is the challenge in the interim. Development will not stop while the City revises its codes and ordinances, nor should it. The Planned Development zoning district should be used in the interim to advance the goals of the Comprehensive Plan and, in particular, the Liberty Neighborhood Principles. Since the Planned Development district is intended to provide wide latitude and flexibility in use and design of land, the City should exploit the discretionary authority embodied in this zoning district. The City should immediately revise the Planned Development zoning district regulations, such as removing the five acre minimum size requirement, to make this district as readily available and easy to use as possible.

Until the comprehensive amendment is completed, treating new development proposals as Planned Developments gives the City the ability to apply the recommendations and principles of the Comprehensive Plan in-lieu-of the revised Zoning Ordinance and Subdivision Regulations. However, all new development need not be treated as a Planned Development. The City staff can use its discretion in determining which development proposals should be influenced by the Comprehensive Plan's recommendations. This approach is recommended as an interim measure only and is not an appropriate long-term solution for the city or the implementation of the Comprehensive Plan.



City of Liberty Zoning Ordinance

District PD, Planned Development District

Purpose. The purpose of the planned development district is to facilitate the development of large scale or mixed use developments, or for development of difficult sites due to topographic or other environmental considerations in such manner as to allow one or more of the following objectives to be obtained:

1. Flexibility in design and to take the greatest advantage of natural land, farms, trees, historical and other features.
2. Accumulation of large areas of usable open space for recreation, preservation of natural amenities, and provision of community facilities.
3. Creation of a variety of dwelling types in compatible arrangements that give the home occupant greater choice in selecting types of environment and living units.
4. Clustering of one residential type for better use of land and open space, as long as the resultant density does not exceed the allowed density based on the future land use plan.
5. Allowance of sufficient freedom for the developer to take a creative approach to the use of land and related physical development, as well as utilizing innovative techniques to enhance the visual character of the city.
6. Efficient use of land which may result in reduction in development and maintenance costs of street and utility systems.
7. Establishment of criteria for the inclusion of compatible associated uses to complement the residential areas within the planned unit development.
8. Simplification of the procedure for obtaining approval of proposed development through simultaneous review by the city of proposed land use, site consideration, lot and setback consideration, public needs and requirements, and health and safety factors.

The Long-term

There are four areas of concentration which are key to implementing the vision for Liberty: creating and maintaining a sense of community; improving green space and rural development standards; expanding housing opportunities; and, diversifying available transportation options. The action steps for each area are below.

CREATE AND REINFORCE A SENSE OF COMMUNITY

A. Establish a City-wide street tree planting program.

A systematic approach would be easy to implement and provide immediate benefit. The Subdivision Regulations need to be amended to require street tree planting on *all* streets in Liberty. The City may want to consider cost sharing programs for street tree planting in existing neighborhoods.

- B. **Allow for the Creation of “Third Places”.** The physical design and appearance of a development contribute to the dynamics of a sense of place. However, the uses of land and the public realm also contribute place-making. The City should examine the Zoning Ordinance—and other regulations in the Municipal Code—to determine whether the land uses permitted in various zoning districts unnecessarily inhibit or restrict the formation of “third places” in the city. “Third places” are spaces or uses which act as impromptu, informal gathering spots in a neighborhood for neighbors to meet, greet, and observe. Such “third places” can be created by simply placing tables and chairs on the sidewalk in front of a café, bar or restaurant, or providing a public space which permits the same functions to occur.

C. Implement Traffic Calming Measures in the City.

Implementing traffic calming measures can be accomplished incrementally and need not be implemented across the entire city initially. Many communities have begun implementing traffic calming measures by starting with demonstration projects in selected neighborhoods before applying techniques in new development or retro-fitting existing neighborhoods across the city. Traffic calming solutions should be site specific and appropriately matched to the conditions in the neighborhood and the traffic intended to be calmed.

Community Survey in Liberty Citizen newsletter

November 1998

The survey posed an open-ended question - “When I picture a great neighborhood, I see . . .”

Citizens wrote:

The trees are beautiful, people friendly.

Trees.



Traffic Calming

Traffic calming devices include: speed humps, traffic circles, roundabouts, and medians. They have proven to be effective in slowing traffic, reducing the number of vehicular accidents, and discouraging motorists who cut through residential neighborhoods to speed their trips.

D. **Exploit in-fill development opportunities.** In order to stimulate investment in neighborhoods throughout Liberty and achieve the goals of the Comprehensive Plan, the Liberty Neighborhood Principles should be applied to in-fill and redevelopment opportunities in the city. The application of the Neighborhood Principles should help to physically and aesthetically integrate new development, mixed-uses or new uses into existing neighborhoods. In-fill development capitalizes on existing investment in streets & utilities and decreases the pressure to develop on the city's edge.

E. **Establish Commercial Design Guidelines.** These guidelines should not prescribe an architectural style or period. Instead these guidelines should identify the building or design elements that contribute to Liberty's character, making buildings more pedestrian friendly and safer as well as reducing their size and scale. For example, the buildings occupied by "big box" uses can be tamed by adding architectural ornamentation, adding windows to blank walls, articulating or calling attention to the building entrance with architectural elements, using more than one exterior building material, and so on. Also, the techniques used with Crime Prevention through Environmental Design can bring a humanizing element to commercial architecture. Guidelines such as these will be particularly important for Liberty's Gateways.

F. **Apply higher design standards to public projects.** Public projects represent an investment in the community and can directly influence perceptions. The City should as a matter of policy seek to set the benchmark for design through public buildings and the infrastructure projects it undertakes. The design of bridges, headwalls, retaining walls (such as the one on Kansas Street east of Highway 291), as well as public buildings provide positive public benefits beyond the immediate neighborhood and further define the character of Liberty.



Crime Prevention Through Environmental Design (CPTED)

CPTED is a crime prevention planning tool that focuses on the proper design and use of the built environment. It consists of 4 basic principles.

1. *Natural Surveillance* For example, a storefront with windows keeps "eyes on the street."
2. *Natural Access Control* Would-be offenders should have not only a difficult time entering a space without being observed, but also should not be provided with opportunities to justify or rationalize their presence in a private or semi-private space (e.g. "I didn't know this was private property.")
3. *Territorial Reinforcement* The use of physical attributes that express ownership, such as fences, pavement treatments, art, signage and landscaping.
4. *Management and Maintenance* Regular upkeep of property shows ownership and that people are around.



IMPROVE GREEN SPACE AND RURAL DEVELOPMENT



Community Survey
in Liberty Citizen
newsletter

November 1998

The survey posed an open-ended question - "When I picture a great neighborhood, I see . . ."

Citizen wrote:

Landscape fishing/flood control ponds.



A. Establish Conservation Subdivision Design

Standards. In order to achieve the objectives of the Comprehensive Plan in the Rural Development Land Use areas, Conservation Subdivision Design Standards need to be developed and adopted. These Conservation Subdivision Design Standards should accomplish several things. First, a process for identifying lands unsuitable for development due to ecological or aesthetic reasons must be established. Second, instructions for what to do with lands otherwise suitable for development need to be set forth. Third, standards for development need to be established. Finally, the disposition of the resulting open space or common areas needs to be identified. Depending upon the characteristics of the undeveloped land it may be conveyed to a farm trust, a conservation trust or agency, the City, or be held in private ownership with a conservation easement in place.

The design standards for conservation subdivisions may not be materially different from those developed for traditional neighborhood development, except that clustering development into limited areas of a site is an overriding objective.

B. Adopt Stream and Drainage Way Protection

Regulations. Irreparable damage and destruction of the many streams and drainage ways across the city have occurred over the years. These conditions will continue and grow in severity unless regulations are adopted to curb the impacts of upland development on the streams and drainage ways in Liberty. The direct and indirect costs of such disregard for natural drainage systems is manifested in the increasing severity and occurrence of flooding; the increasing amount and severity of erosion; and the annual loss of property, habitat and biodiversity in Liberty. These conditions are not sustainable.

The City cannot undo what has been done up to now, but steps can be taken to prevent further damage to the streams and drainage ways and wetlands in the city and to begin restoring the natural hydrological function in the landscape. To accomplish this, the City should adopt comprehensive stream and drainageway protection regulations that include: (1) storm water management regulations requiring land developers and

their developments; (2) standards for development near steep slopes and erosion-prone soils; and (3) reliance on bio-engineering techniques, such as grass-lined swales, and natural stream bank stabilization. Along with these requirements, standards for infiltration and other landscaping techniques to decrease the amount of impermeable surfaces (parking lots) and reduce the amount of overland drainage should be included.

C. Natural Landscaping and Landscape Restoration.

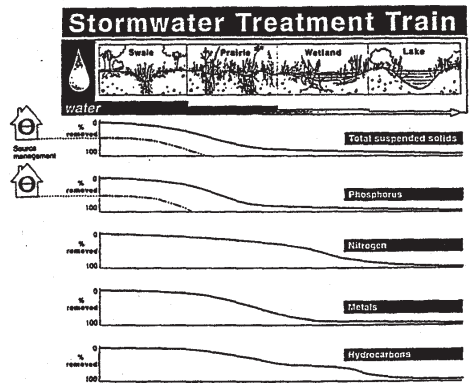
The City should revise the landscaping requirements in the Zoning Ordinance and Subdivision Regulations to encourage the use of native plant material for landscaping and encourage existing property owners to convert their properties to natural landscaping. The nuisance section of the City Code should be revised to allow such landscaping. The benefits include reduced storm water run-off, increased flora and fauna habitat, diminished need for water irrigation, and a visually appealing natural landscape that would distinguish Liberty from its neighbors.

Two areas designated as Conservation Lands, the Claycrest Golf Course and the old Odd Fellows property, are good examples of sites which can be developed using natural areas and views as major assets.

D. Establish a Wellhead Protection Program. Due to concerns over possible contamination by certain kinds of development, a wellhead protection program should be established. Zones around the community’s wellfield located south of Old 210 Highway, should be developed to help ensure a degree of protection from chemicals, hazardous materials, or other forms of contamination.

ENSURE A VARIETY OF HOUSING OPPORTUNITIES

A. Provide Wider Choices and Options. Multiple-family and apartment units need to be incorporated into as much new development as practical and possible. The Liberty Neighborhood Principles encourage mixing all types of housing in neighborhoods, but the City may need to establish requirements, such as minimum percentages of dwelling types, in order to satisfy this objective. All of the various housing types should be permitted in a neighborhood or zoning district. Adoption of design standards for all building types in each district would help to ensure some coordination among surrounding land uses.



The Stormwater Treatment Train is designed to reduce runoff and improve the quality of water in and leaving the area.



- B. **Reconfigure the City’s Zoning Districts.** The current zoning regulations, particularly the residential zoning districts, contribute to the separation of neighborhoods in Liberty. Residential zoning districts in Liberty correspond to residential building types (e.g. two family, garden apartments, townhouses) rather than representing the desired qualities and characteristics reflected in the Liberty Neighborhood Principles.

The Neighborhood Conservation Residential District (RNC District) should be used as a model for future zoning districts in Liberty. The RNC District is an example of a zoning district structured around an objective of maintaining specific characteristics of the neighborhood. A description of the RNC District explaining why this designation was created is included in the Zoning Ordinance. The designation demonstrates the need to provide certain neighborhoods with special treatment and how it can be achieved. Traditional Neighborhood Design (TND) standards and principles should be woven into the zoning regulations in this manner. Some districts may exhibit more TND principles than others.



- C. **Restructure the City’s Development Review Process.** Development review procedures can be restructured to reward development employing TND principles. For example, the City may provide for an expedited review process for developments that demonstrate an understanding of TND principles and conformance with the Comprehensive Plan. The City could provide orientation sessions and workshops in cooperation with the development community which center on the Liberty Neighborhood Principles and review process to foster a good working relationship.

- D. **Permit Accessory Apartments.** An accessory apartment is a small dwelling unit, usually above a detached accessory garage on a single-family or multiple-family lot. Accessory apartments generally are between 400 and 700 square feet in area and provide housing options for many segments of the housing market, including young adults and seniors. They provide opportunities for children and elder parents to live independently on the same lot as a family. The City Zoning Ordinance needs to be revised to permit this use and establish the criteria that will distinguish appropriate from inappropriate examples.



E. **De-emphasize the Garage.** The City should establish regulations or guidelines that reduce the impact of garages on the streetscape. A simple requirement that garages, whether attached or detached, should be set back at least eight feet from the front building line of the dwelling would produce dramatic effects on new residential streetscapes in Liberty.



F. **Humanize Multiple-family Housing.** Multiple-family housing need not appear institutional and should provide an appearance as dignified as any single-family home. In the course of revising the Zoning Ordinance, the City should establish basic design guidelines for multiple-family structures which would improve the character and appearance of these building types. For example, orienting buildings to the street, placing entry doors on the front of buildings, and greater architectural ornamentation and differentiation on building facades would help make these projects more compatible with Liberty's low-density character and conform with the Liberty Neighborhood Principles.



DIVERSIFY AVAILABLE TRANSPORTATION OPTIONS

- A. **Develop Transit-oriented Land Use/zoning regulations.** There is a great interest in the community for establishing public transit in Liberty. The City can help facilitate this by making it possible to develop transit-oriented neighborhoods. Transit-oriented land use/zoning regulations should be created to differentiate these neighborhoods from others in Liberty. Such transit-oriented regulations should be developed along with the zoning and subdivision regulations intended to institutionalize the Liberty Neighborhood Principles.
- B. **Develop Partnerships with Other Municipalities in the Region to Influence Regional and State Policy-makers' Decisions Affecting Public Transit Initiatives and Funding.** Transit initiatives are regional in scope and nature. Any movement toward implementing commuter rail service or fixed route bus services and other transit options will require the support and participation of other communities in the region. For example, the successful existing express-bus service between Liberty and downtown Kansas City is a small, but important, step toward the goal of providing transit options in Liberty.
- C. **Make New Development Pedestrian, Bicycle and Transit Friendly.** Develop and adopt land use and design standards for new development which make all development and neighborhoods throughout Liberty pedestrian, bicycle and transit friendly. This might include providing bicycle parking, benches at regular and predictable intervals, circulation drives in commercial development that can accommodate a transit bus, or sidewalks along arterial streets so that prospective transit riders have a safe place to walk to and from the transit stop. All of these can provide positive contributions to pedestrian, bicycle and transit users.
- D. **Implement a Sidewalk Construction/replacement Program.** An aggressive sidewalk construction program would address sidewalk gaps and provide an immediate community benefit.

The Right Tools for the Job

March 18, 1999

Citizens were given over 50 "tools" or implementation strategies from which to choose. After choosing all the tools they liked, participants were asked to choose their top 5.

1. Plan now for Transit
2. Traditional Neighborhood Design
3. Wetland/Watershed Protection
4. Commercial Design Guidelines
5. Conservation Subdivision Design.



E. **Revise the City's Street Design Standards.** The charm, character and unique qualities of a place are determined as much by the streets as by land uses. Streets have dual purposes of moving different kinds of traffic (automobile, truck, pedestrians, and bicyclists) and providing access to homes and business. The street design standards should be revised to provide more design options (street variety); reduce curb return radii (walkability); reduce horizontal curve radii (traffic calming); increase sidewalk widths; and, add standards for street design on commercial and mixed-use street frontages. By providing these options and keeping different users in mind, streets can meet the goal of moving traffic without becoming barriers dividing neighborhoods and the city.



 **Community Survey
in Liberty Citizen
newsletter**

November 1998

Survey result:

54% agreed that Liberty should have more public transportation.

The survey posed an open-ended question - "When I picture a great neighborhood, I see"

Citizens wrote:

Diversity of housing and plenty of green space. Small commercial areas. Lots of sidewalks and areas for biking. Public transportation.

Well lit and well maintained streets with sidewalks and natural plantings.

Liberty needs better STREETS, STREETS, STREETS, sidewalks and step curbs not easy over type.

Appendix

The Ecological Profile

Land Cover Types

Developed Land (1)

Lands converted for human uses other than agriculture constitute the bulk of the total land surface of Liberty. Much of this land is devoted to residential housing (Type 1A) which includes single-family and multi-family dwellings and associated parking and landscape features. Older residences are scattered along roads, while more recent tract housing developments occupy larger parcels formerly woodland and agricultural fields. These are concentrated in the western and southern portions of Liberty.

Lands developed for industrial and commercial use (Type 1B) include retail, service, and manufacturing enterprises with their parking and loading facilities and landscaping features. Schools and cemeteries are included in this category.

Lands devoted to recreational use (Type 1C) include parks, campgrounds, and golf courses. The vegetation in this cover type varies from mowed lawns, landscape plantings, and patches of native vegetation to remnant oaks and other native trees.

Railroad/road easements (Type 1D) include rail, road surfaces and bordering right-of-way properties. Not all roads are delineated on the Land Cover Types Map as they are easily recognized from the map's aerial photo. The vegetation occupying railroad and road ditches varies. Roads which traverse dry upland soils through agricultural lands typically feature non-native grasses, forbs, and native species that tolerate disturbed soils (see description of fallowed fields, Type 2C1). Wet ditches may contain patches of native wetland species, but are most often invaded by non-native reed canary grass. Roadways are typically how this aggressive wetland invasive plant are spread.

Mowed lawn, landscaped trees and shrubs (Type 1E) typically accompany the residential cover type. The typical vegetation includes Kentucky blue grass and a variety of cultivated forbs, shrubs, and trees. In some cases, native old oaks and pockets of native wetland vegetation are preserved in residential developments.



Ecology Vocabulary

Enriched system - Nutrients normally held in soils are washed into bodies of water where they increase the growth of algae and other plants resulting in less oxygen for aquatic animals and dominance by unwanted plants.

Forb - Herbs other than true grasses, sedges, and rushes and nongrasslike plants having little or no woody material

Hedgerow - A group of trees and shrubs separating two grassy areas.

Moraine - An accumulation of earth and stones carried and finally deposited by a glacier.

Nutrients - Elements or compounds essential to growth and development of living things: carbon, oxygen, nitrogen, potassium, and phosphorus.

Sedge - A grasslike plant that grows in wet places.

Wetland - Land with wet and spongy soil.

Agricultural Lands (2)

Lands classified as agricultural include all areas cleared of native vegetation for crop or forage production, currently or in the recent past (recently enough to have not converted back to woodlands). As a single category, agricultural lands constitute the largest cover class in Liberty. Farm residences and associated out-buildings (Type 2A) are included, along with cropped (Type 2B) and fallowed (Type 2C) fields and freshly tilled soils (Type 2D). Currently, the majority of agricultural lands are used for pasture, with many areas having native warm season grasses included within planted non-native cool season grasses.



Fallowed fields (Type 2C), also referred to as “old-fields,” are lands that have been taken out of agricultural production long enough for development of successional plant communities which can occur in unmowed (Type 2C1) or mowed condition (Type 2C2). Early-successional stages of growth are typically dominated by weedy natives and introduced, non-native grasses and forbs common to most agricultural fields. Dominant plant species include many non-native, cool-season grasses, such as quack (*Agropyron repens*), smooth brome (*Bromus inermis*), Kentucky blue (*Poa pratensis*, *P. compressa*), fescue (*Festuca elatior*), orchard (*Dactylis glomerata*), foxtail (*Setaria spp.*), and timothy (*Phleum pratense*).



Successional Plant

Successional plant communities start as weeds which change to grasses eventually.

Non-native broad-leaved forbs found in fallowed fields include dandelion (*Taraxacum officinale*), plantains (*Plantago major*, *P. lanceolata*), thistles (*Cirsium arvense*, *C. vulgare*, *Carduus nutans*), wild carrot (*Daucus carota*), wild parsnip (*Pastinaca sativa*), sweet clovers (*Melilotus spp.*), and others. Weedy native plant species found in old-field settings are those most tolerant of disturbance, such as ragweeds (*Ambrosia trifida*, *A. artemisiifolia*), fleabanes (*Erigeron annuus*, *E. strigosus*, *E. canadensis*), Canada goldenrod (*Solidago canadensis*), hairy aster (*Aster pilosus*), avens (*Geum canadense*), common milkweed (*Asclepias syriaca*), and a few others.

Over time, unmanaged fallowed fields are invaded by shrubs and saplings. Woody plants invading into the old fields include trembling aspen (*Populus tremuloides*), wild black cherry (*Prunus serotina*), black locust (*Robinia pseudoacacia*), honey locust (*Gleditsia triacanthos*), hedge apple (*Maclura pomifera*), hackberry (*Celtis occidentalis*), green ash (*Fraxinus pennsylvanicum*), boxelder (*Acer negundo*), elm (*Ulmus spp.*), cottonwood (*Populus deltoides*), and brambles (*Rubus spp.*). Shrubs associated with wetter sites include dogwood (*Cornus spp.*), sandbar willow (*Salix interior*), and black willow (*Salix nigra*). Some small areas of fallowed land have been planted to warm-season, native prairie grasses (Type 2C3).

Forested Communities (3)

Historic forests of the sandy and loess soils along the Missouri River range from drier oak savannas, with scattered hackberry, white, bur, hills, blackjack, and post oaks, black walnut



Loess Soil

Loess soil is characterized by silt-sized particles that have been transported and deposited by the wind.

(*Juglans nigra*), Siberian elm (*Ulmus chinense*), white mulberry (*Morus alba*) red elm (*Ulmus rubra*), and some other species. Elm and ash were present on moist but well drained sites. Along river courses and in floodplain environments silver maple (*Acer saccharinum*) and sycamore (*Platanus occidentalis*) dominated.

All forested systems have been dramatically altered in the past 100 to 125 years by intensive logging, the absence of fire, invasion by exotic plant species, fragmentation due to extensive clearing for agriculture, and, more recently, by residential development. The degraded condition of forested communities is widespread and has directly contributed to the decline of the region's aquatic systems. Several local cover types of upland, forested communities are identified in Liberty: treed fence rows, flood plain forests, recently developed forests, historic oak savannas, and plantations.

Treed fence rows (Type 3A) are associated with some agricultural fields and represent a small portion of the forested cover type. Typically, these communities develop as wind- and bird-disseminated tree and shrub species become established along fence lines, dead furrows, or drainage ditches. Common species include wild black cherry (*Prunus serotina*), boxelder (*Acer negundo*), cottonwood (*Populus deltoides*), honey and black locusts, American elm (*Ulmus americana*), honeysuckle (*Lonicera tatarica*), berry brambles (*Rubus spp.*), and common buckthorn (*Rhamnus cathartica*), with occasional oaks (*Quercus ellipsoidalis*, *Q. macrocarpa*), hickories (*Carya ovata*, *C. cordiformis*) and hackberry. An herbaceous cover of largely non-native grasses and forbs includes smooth brome (*Bromus inermis*), quack (*Agropyron repens*), fescue (*Festuca elatior*), orchard grass (*Dactylis glomerata*), timothy (*Phleum pratense*), wild carrot (*Daucus carota*), motherwort (*Leonurus cardiaca*), and thistles (*Cirsium spp.*). Some treed fence rows of evergreen species are planted as wind breaks. Some are often contiguous with remnant wood lots, thus serving as important migration corridors and habitat for wildlife.

Floodplain forests (Type 3B) are seasonally-flooded wetland communities marginal to streams. They are commonly dominated by a canopy of young-growth cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), boxelder (*Acer negundo*), willows (*Salix spp.*), and American elm (*Ulmus americana*) with a woody and herbaceous vine component of river bank grape (*Vitis riparia*), Virginia creeper (*Parthenocissus quinquefolia*), poison ivy (*Rhus radicans*), wild cucumber (*Echinocystis lobata*), and nightshade (*Solanum dulcamara*). Areas with too much shade or frequent flooding are devoid of ground cover vegetation or support a low-diversity, sparse ground cover of native and non-native herbaceous species, including wild rye (*Elymus virginicus*), sedges (*Carex spp.*), and nettles (*Urtica dioica*, *Laportea canadensis*).

During the field mapping investigation, no floodplain forest cover type was identified or distinguishable from recently developed forested systems (Type 3C). Areas which historically served as floodplain no longer experience the same flooding frequency or duration because of deeper stream beds (due to increased run-off), intensive agricultural land use, and other land development activities. Stream down-cutting elevates riparian areas above the stream level resulting in drier soil. In open areas, reed canary grass (*Phalaris arundinacea*) often becomes well established in these drained wetland soils. Affected riparian areas consisting of previously saturated peat and muck soils can experience increased oxidation, resulting in the release of significant amounts of formerly bound nutrients to down-stream systems resulting in an enriched system.

Recently-developed forested systems (Type 3C) represent a majority of the forested cover of Liberty. Varying in composition and structure, these communities are typically comprised of early-invading species, such as trembling aspen, cottonwood, boxelder, green ash, cherry, and elm. They often develop in fallowed fields, formerly wetland soils (hydric soils), spoils piles along ditches, and dehydrated riparian margins, where early-successional tree species have invaded. A dense sub-canopy can develop, which can include growths of common buckthorn, Tartarian honeysuckle, and other shrubs that are semi- to completely shade-tolerant. Shading by young, woody growth in both layers has contributed to the decline of the native, soil-stabilizing vegetation. These are low-diversity, unstable systems. When these communities occur along streams or wetlands, they contribute substantial woody debris to the adjacent aquatic systems. Results of this condition include stream bank erosion, log jams, and other costly stream-maintenance problems, all of which can be prevented with proper management. A component of this community type has developed in historic oak savanna communities where fire suppression has resulted in aggressive woody invasion.

Historic oak savannas (Type 3D) are remnant, formerly-open communities of drier sand and morainal ridge tops in the Liberty area. They represent approximately 33% of the mapped forest cover, but only 5% of the total cover of the City. Remnants of this type can be found throughout Liberty but most commonly on B, H, and A Highways, north of I-35, west of Church Road, north and south of Nashua Road, and south on Withers Road. They were once dominated by fire-tolerant species including northern pin, bur, and white oaks along with other oaks (*Quercus ellipsoidalis*, *Q. macrocarpa*, and *Q. alba*, respectively), native forbs, grasses, and sedges in the understory. However, most oak savanna systems have experienced severe degradation following the cessation of fire and the subsequent development of a closed-canopy, overstocked with early-successional species, as described above (see recently-developed forested systems, Type 3C). Ground cover vegetation now varies from very shady areas with a sparse, low-diversity ground cover to open areas with a dense invasion of smooth brome, blue, and quack grasses. Some areas have relatively diverse ground cover vegetation along stand edges and in light gaps with remnants of native vegetation. The erosion of topsoil in severely shaded areas has further resulted in the loss of the long-lived seeds, roots, tubers, bulbs, and other plant propagules of native species from the soil seed bank. In many of the savanna sites, substantial die-back is observed on lower branches of the oaks due to the dense shading caused by the overstocked canopy. Storm damage is beginning to contribute to the loss of oak systems and regeneration is already compromised by the dense shade in the remaining remnants.



Propagule

A propagule is a cutting, seed or spore from which a plant can grow.

The deterioration of these oak savannas has followed a process of degradation documented by previous studies throughout the Upper Midwest. These include a precipitous decline in breeding bird and native vascular plant species richness. The opportunity for restoring these savanna systems declines with increasing time, due to erosion and loss of the soil seed bank.

Plantations (Type 3G) were typically a few acres in size and planted to siberian elm and catalpa (*Catalpa speciosa*). Beneath most plantations are dense litter beds with little or no ground story vegetation. Some plantations have European brome grass understories.

Wetlands (4)

Wetlands associated with streams and low-lying areas represent a minor cover type in Liberty. Narrow linear wetlands and backwaters associated with road and drainage ditches are included.

All wetlands examined in the survey have been significantly modified. Alterations in the water level dynamics, particularly the elevation and stabilization of water levels, have resulted because of the construction of roads and ditches and the damming of streams. Extensive cattail communities (*Typha latifolia*, *T. angustifolia*) (Type 4C) occupy the shallow waters of all lake shorelines. Stream down-cutting and ditching have lowered ground water levels, leading to the seasonal drying of the upper wetland substrates. This allows for decomposition and the liberation of nitrogen, phosphorus, and other nutrients typically organically bound and held tightly under submerged, saturated, and anaerobic conditions. Subsequent increased sediment, salt and nutrient loading from decomposed wetland soils and from surrounding degraded uplands have caused a shift to vegetation types adapted to these conditions, such as introduced, Southeast Asian reed canary grass (*Phalaris arundinacea*) (Type 4D) and giant reed grass (*Phragmites australis*), which form dense mono-cultures.



Small remnant areas of wet prairie (Type 4A) and sedge meadow (Type 4B) remain, particularly along margins transitional to adjacent uplands of larger wetland areas and in wetlands that have not been subjected to extreme hydrologic changes. However, these areas are threatened by invasive woody growth from extensive shrub thickets (Type 4F) of dogwoods (*Cornus spp.*), willows (*Salix spp.*), and young cottonwood (*Populus deltoides*). Common plant species of these higher quality wetlands include graminoid species, such as sedges (*Carex vulpinoidea*, *C. Stipata* and perhaps others). Forbs found in these wetland margins and transitional areas include knotweeds (*Polygonum amphibium*, *P. pensylvanicum*) and beggar ticks (*Bidens frondosa*, *B. vulgata*, *B. cernua*). Common buckthorn (*Rhamnus cathartica*) has invaded some of the locations. Reed canary grass (*Phalaris arundinacea*) is scattered in patches.

In many locations, uplands bordering wetlands have become seriously degraded (see recently developed forested systems, Type 3C). Where previously open and semi-open conditions were found, dense shading by boxelder, green ash, cottonwood, and elm now prevent the growth of diverse, soil-stabilizing ground cover vegetation and lead to erosion and loss of the native seed bank. Several of these locations have been invaded by non-native plant species, including garlic mustard (*Alliaria officinalis*) and creeping charley (*Glechoma hederacea*). Wetlands are dominated by vegetation typically found in enriched wetland systems possessing high nitrogen, phosphorus, and potassium levels.

Open Water/Drainages (5)

Open water features consisting of stream courses and farm ponds are a minor land cover type in Liberty. A small number of streams (Type 5C) are identified. As with most waterways in areas with developed uplands, the streams are subjected to increased surface water runoff carrying heavy nutrient-rich sediment loads, road salts, and hydrocarbon-based



contaminants. Increased discharge rates have caused serious down-cutting and stream bank erosion. Present water quality conditions can no longer support the diversity and population of fish and aquatic invertebrate previously known here. Species are now limited to those tolerant of degraded conditions.

Despite Liberty's proximity to the Missouri River, no major rivers (Type 5B), springs or seeps (Type 5D) are identified. Other open water features include detention ponds and ponds constructed as aesthetic amenities and wildlife habitat (Type 5E). Farm ditches and canals (Type 5F) drain many acres of formerly hydric soils now converted to agricultural uses. These ditches have become important conveyances for invasive reed canary grass.

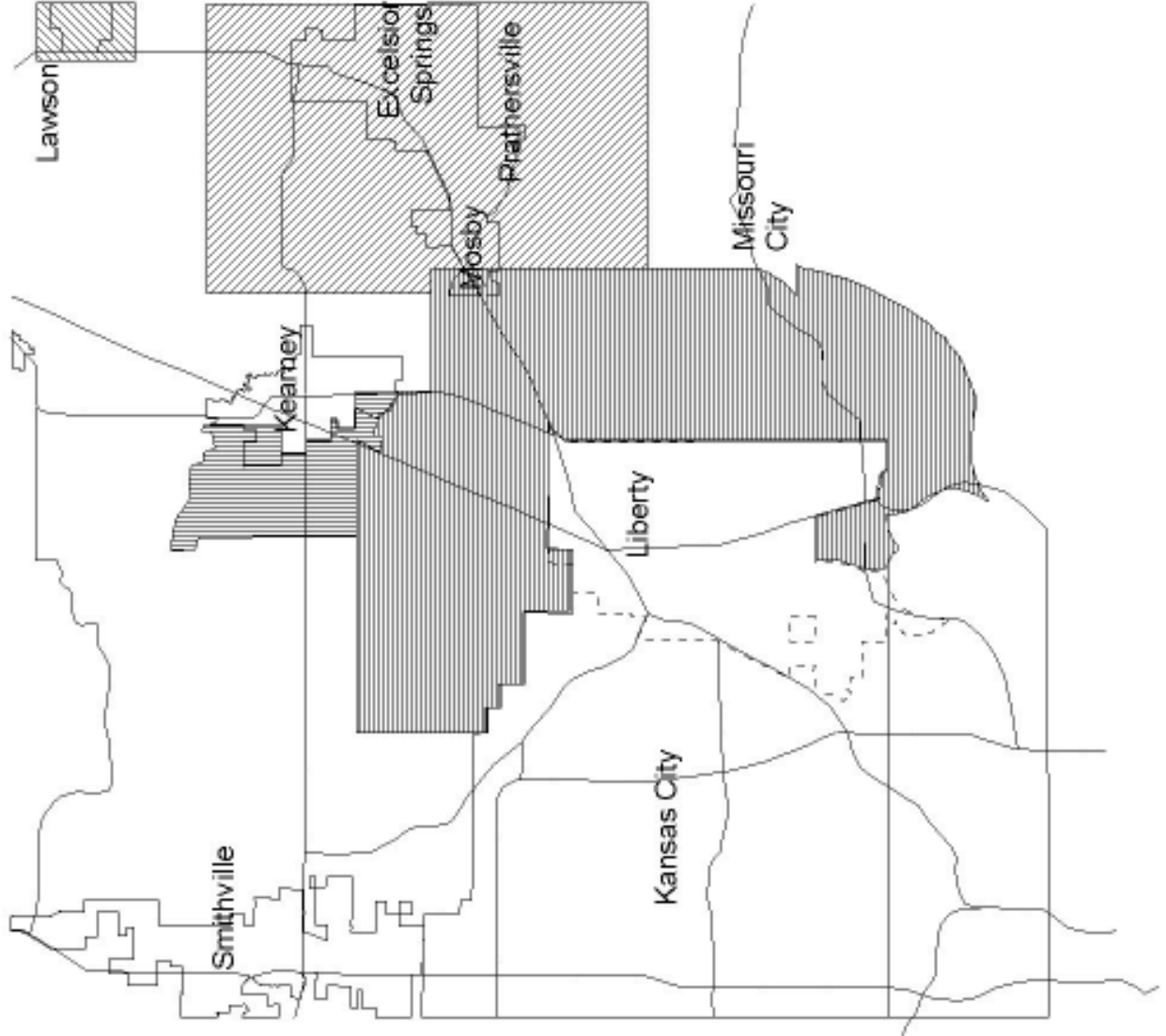
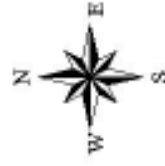
Upland Prairie Remnants (6)

Upland prairie vegetation was once an important cover type in the area, occupying drier ridge tops and integrating with oak savanna and mesic (requiring a moderate amount of moisture) forest communities along the Missouri River. Today it is virtually gone, except for minor remnant patches and scattered populations of prairie species along the edges of roads, old fields, and under oak savannas. A remnant dry prairie (Type 6B), a few acres in size and located adjacent to the cement plant on Church Road, was sampled during this investigation. Between 30-50 species were identified. Approximately half of these species are native to dry prairies. Prairie grasses, such as big and little bluestem (*Andropogon virginicus* and *A. scoparius*, respectively), Indian grass (*Sorghastrum nutans*), prairie switch grass (*Panicum virgatum*), sand dropseed (*Sporobolus cryptandrus*), Canada wild rye (*Elymus canadensis*) are most notable. Common forbs included evening primrose and many non-native species such as giant mullein, Queen Anne's lace, Johnson grass, hairy aster, fleabanes, smooth brome and tall fescue grasses, and numerous others. Korean bush clover (*Lespedeza stipulaceum*), stiff-leaved goldenrod (*Solidago rigida*), yellow giant hyssop (*Agastache nepetoides*), and old-field goldenrod (*Solidago nemoralis*) were also present. Non-native species with high importance values at this location include Kentucky blue grass (*Poa pratensis*), quack grass (*Agropyron repens*), yarrow (*Achillea millefolium*), and field sorrel (*Rumex acetosella*).

While the important values of native dry prairie species are presently only slightly higher than that of non-natives at this site, minimal management through periodic controlled burning in selected areas will increase the quality of this community over time. *This remnant represents a rare community type in Liberty. Efforts should be made to preserve it.* Small areas of mesic prairie remnants (Type 6A) were also observed along mid-slope locations in this same site. In addition, some native grasslands (Type 2C4) are located at nature centers and parks (e.g. Martha Lafite Thompson Nature Sanctuary).

The Ecological Context describes how the restoration of native landscapes can benefit Liberty by improving stormwater management, promoting a variety of plant and animal life, and creating quality open spaces. Liberty has remnants of native vegetation (notably the riparian systems in Claycrest golf course and prairie on Church Road) which can guide restoration efforts in other areas. As Liberty grows, the Ecological Context can guide development in taking advantage of working with natural systems.

MUNICIPAL ANNEXATION INTENT AREAS AND PRINCIPAL CITIES IN CLAY COUNTY



SCHOOL DISTRICTS IN CLAY COUNTY

