

AN UPDATE-1995-2015

NORTHERN KENTUCKY'S FUTURE
A COMPREHENSIVE PLAN FOR DEVELOPMENT

NORTHERN KENTUCKY AREA PLANNING COMMISSION



December 11, 1996

Mr. Afton H. Kordenbrock, Chairman
Northern Kentucky Area Planning Commission

Mr. Timothy B. Theissen, Chairman
Kenton County and Municipal Planning and Zoning Commission

Dear Mr. Kordenbrock, Mr. Theissen and Commission Members:

I am happy to submit this study entitled "An Update -- 1995 - 2015 - Northern Kentucky's Future -- A Comprehensive Plan For Development". This document represents the fourth major update of the plan, which was originally prepared and adopted in 1972.

Kentucky Revised Statutes mandate that the Comprehensive Plan be prepared in a fashion which will assure that it contains all the necessary ingredients to serve as the plan which can be adopted by the local planning commission -- in this case, the Kenton County and Municipal Planning and Zoning Commission. This is an attempt to keep planning in Kenton County current and accurate in light of changes which have occurred over the past five years. Completion of this Comprehensive Plan Update will allow the Northern Kentucky Area Planning Commission and the Kenton County and Municipal Planning and Zoning Commission to move forward, with strengthened bases in their continuing roles of providing assistance to local governments and to the Northern Kentucky community in general. Such assistance will, hopefully, help ensure sound future development and redevelopment, specifically in Kenton County, but as well in the surrounding areas which have effect, and are affected by activities within Kenton County.

I take this opportunity, in behalf of myself and the staff of the Northern Kentucky Area Planning Commission, to thank the members from both the Northern Kentucky Area Planning Commission and the Kenton County and Municipal Planning and Zoning Commission for their confidence and understanding, and for the many hours of time which they have dedicated to review of this Plan Update.

I also take this opportunity to thank the many persons and organizations whom we have drawn upon for assistance in this plan update process. Any effort to extend our gratitude to specific individuals would only result in unintentional omissions, and it is, hopefully, sufficient to say that we are very thankful for the time which they offered and the assistance which they provided in this work.

Respectfully submitted,

William W. Bowdy, AICP
Executive Director

WWB/db

AN UPDATE
1995 - 2015
NORTHERN KENTUCKY'S FUTURE
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IMPLEMENTATION

ADOPTED BY THE
NORTHERN KENTUCKY AREA PLANNING COMMISSION AND
THE KENTON COUNTY & MUNICIPAL PLANNING & ZONING
COMMISSION

DECEMBER 11, 1996

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SUMMARY OF CRITICAL RECOMMENDATIONS AND MAJOR ITEMS OF INTEREST

The following is an abbreviated listing of the major recommendations and information contained in this Comprehensive Plan Update. If these Plan Update Recommendations were accomplished, the following results would be realized.

- Population: Kenton County population is projected to increase from 145,830 persons in 1995 to approximately 157,250 persons by the year 2010 and to approximately 162,300 persons by the year 2020. These projections indicate that by the year 2000 more than 50 percent of the population will be over age 35 — a trend that is projected to continue to the year 2020.
- Urban Services: All urban services (i.e., a high level of police and fire protection, water and waste management, transportation, etc.) would be provided to all areas where development was permitted at urban densities.
- Non-Urban Services: Only non-urban type development would be permitted in the remaining areas, and these areas would be regulated in a manner to retain their rural character and to preserve their value as agricultural and open space resources. These areas consist of low density residential and would not be provided with all urban services.
- Physically Restrictive Development Areas: Certain lands would be stringently regulated as “Physically Restrictive Development Areas” to either be maintained in their natural state, providing openness and greenery as an integral part of the Northern Kentucky landscape, or developed using sound technical practices. Development would be accomplished using designs that would be sensitive to limitations of each site proposed for development. These areas include both hillsides and flood prone areas.
- Residential Land Use: A wide range of residential housing types and densities would be developed and redeveloped to meet the varied needs, inclusive of all income levels, and desires of Kenton County’s population; and to eliminate blight and undesirable environmental conditions.
- Industrial Land Use: Varied types of industrial development complexes, located on the basis of such area-wide considerations as: access to various modes of transportation, closeness to labor force, etc., would be developed. Areas of vacant land suitable for industrial development would be preserved for future use. Scattered and uncoordinated industrial development would be discouraged.
- Commercial Land Use: Commercial areas, in the amount and type necessary to provide service to Kenton County and adjacent areas, the traveling public, etc., would be developed in strategic locations. Uncoordinated and haphazard

commercial development would be discouraged.

- Recreation and Open Space: Large acreages of land would be devoted to park, recreation, and open space purposes dominated by a connecting park-link system, permitting uninterrupted travel throughout the area on urban/rural parkways, with connecting trails for hiking, bicycling, horseback riding, and purely passive recreation activities. Active recreation facilities would also be developed as part of this major recreation and open space program.
- Education Facilities: Public schools would be provided to serve most school age children in the area. The plan anticipates an increased role for parochial and other private schools as attendance in these schools is anticipated to continue to grow.
- School-Parks: All neighborhoods would be provided with school-park facilities developed in conjunction with each other and conveniently available to residents, where such coordinated design was feasible.
- Fire Protection Facilities and Services: More complete fire protection service would be provided, including life squad and ambulance service, to the entire Kenton County area by strategically located fire departments manned by a combination of full-time and volunteer fire personnel, and through an area-wide coordinated dispatching, record keeping, and communications system.
- Library Facilities and Services: Kenton County would be provided with a complete library system with facilities strategically located and amply stocked with reading and research materials.
- Health Care Facilities and Services: All areas of residential, commercial and industrial development would be served by conveniently located “satellite” health care facilities/clinics, supported by the major hospitals, that provide primary care, acute care, and preventative and home care services.
- Water Supply and Waste Management: Areas permitted to be developed at urban densities would be provided with sanitary sewer facilities and central water supply. Transmission and distribution facilities would be inner-connected to provide a more efficient, economical, and reliable system. In the non-urban service area, new technologies for on-site sewerage disposal, along with innovative land development techniques, would be used to accommodate low density residential development.
- Transportation: The area would be served by a coordinated transportation system, inclusive of increased mass transit service, and bicycle and pedestrian ways. Several major highway corridors would be widened and reconstructed to serve the projected needs of the area.

- Information Infrastructure: Kenton County would be served by all forms of new information technology and all citizens would have “universal access” to this technology. New facilities constructed to serve the community would be unobtrusive, yet effectively located to serve the area.
- Implementation: Coordinated and uniform development controls, aided by constantly updated comprehensive planning, capital improvements programming and budgeting, cooperative revenue sharing alternatives and other coordinated efforts to recognize the values of economies of scale and equitable service provision, would be utilized throughout Kenton County.

It is important to recognize that the foregoing captioned summaries are extremely abbreviated versions of only some of the major areas of concern described in this study.

ACKNOWLEDGEMENTS

The Kenton County and Municipal Planning and Zoning Commission and the Northern Kentucky Area Planning Commission offer their appreciation to the following individuals and organizations for their contributions to this 1996 Plan Update. Please accept our apologies for any inadvertent oversights.

- Mr. Jack Kleymeyer, Moderator of the initial Town Meeting at Thomas More College.
- Thomas More College for the use of the campus facilities for the Town Meeting.
- The Town Meeting small group leaders including: John Dorsey, Bill Deupree, Lee Flischell, Ann Gordon, Dan Groth, John Heilman, Jack Kleier, and Bill Scheyer.
- Ms. Peggy Schear, of the Ohio State University Extension Service, for her assistance with the South Kenton County Town Meeting.
- Mr. L. J. Osborne, of the Kenton County Extension Service, for coordinating the South Kenton County Town Meeting and organizing the South Kenton County bus tour.
- The Kenton County School Board for providing a bus for the tour of South Kenton County.
- The Kenton/Boone Cable Board for publicizing events.
- The Focus Group Participants:

Information Technology and Infrastructure: Marc Bergman, Alice Clay, Jean Donohue, Dennis Hinkle, Jack O'Gorman, Wally Pagan, Terry Starrett, Heidi Van Keuren, and Chris Vissman.

Riverfront and Urban Area: Steve Arlinghaus, Susan Conrad, Garry Edmondson, Ella Frye, David Harvey, David Herriman, Ralph Hopper, Craig Johnson, Virginia Kerst, Leah Konicki, Steve Lapke, Richard Lemker, and Karen Rafuse.

Future Land Use and Environment: Gene Archbold, Tim Bartee, Bill Bryant, Harold Buxton, William Cherry, Harley Fisk, Hensley Jemmott, Phil Kloenne, Bill Scheyer, John Toeppen, Mark Vogt, Jim West, Bill Wilson, and Joe Wind.

Community Facilities: Mike Averdick, Bill Blackburn, Larry Bowman, Gary Bricking, Mike Browning, Bill Martin, Dick Murgatroyd, Russ Radenhausen, Mike Strohm, Chris Warneford, David Yeager, and Donna Yeager.

Southern Kenton County: Steve Arlinghaus, Paul Brown, Harold Buxton, Karen Collins, Ruth Exeler, Frank Jackson, Dexter LaFollette, Ken Lewellen, Milton Mains, Larry Maxey, Rick Messingschlager, L. J. Osborne, Gary Richardson, Larry Richardson, Bob Tewes, and Dick West.

Transportation: Neil Blunt, Gailen Bridges, Mark Donaghy, Charles Donaldson, John Dorsey, James Ellison, Gerald Finnell, Lee Flischell, Paul Hahn, Jack Kleier, Henry Mann, Bill Martin, Dory Montazemi, George Neack, Bill Scheyer, Bill Whitson, and Ralph Wolff.

Water, Sanitary Sewer, Storm Water and Solid Waste: Debby Angel, Jay Bayer, Rodney Crice, Jim Curry, Kevin Flowers, Harry Geimeier, Dan Groth, Richard Harrison, Joel LeGris, Richard Lonergan, Frank Rothfuss, Terry Sargent, Mary Shinkle, and Lynn Tomasetti.

- All members of the public attending the Town Meeting, any of the public meetings, and/or the public hearing.

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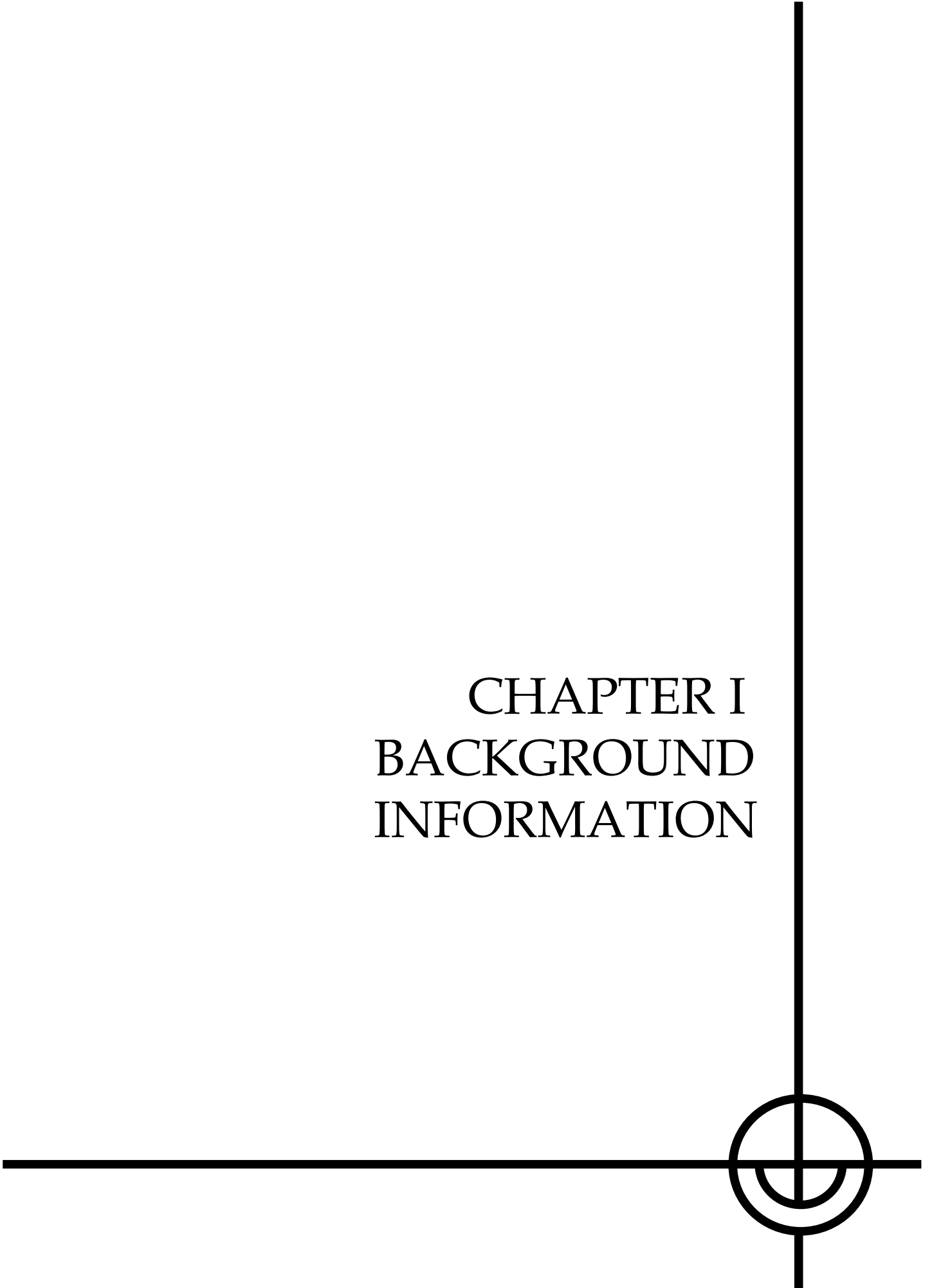
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CHAPTER I
BACKGROUND
INFORMATION



CHAPTER I

BACKGROUND INFORMATION

BACKGROUND

In 1972, after five years of detailed research and study, contacting public officials, organizations, agencies, and various special interest groups, and holding public hearings, the Northern Kentucky Area Planning Commission (NKAPC) completed and adopted the first comprehensive plan to guide development within Campbell and Kenton Counties. That plan was entitled Northern Kentucky's Future, A Comprehensive Plan For Development 1972 - 1990. Subsequently, the Kenton County and Municipal Planning and Zoning Commission (KC&MP&ZC) adopted that plan, with slight modifications, as it applied to Kenton County.

In 1981, 1986, and 1991, the NKAPC prepared and adopted updates of the comprehensive plan entitled Northern Kentucky's Future, A Comprehensive Plan For Development: An Update -- 1980 - 2000, Northern Kentucky's Future, A Comprehensive Plan For Development: An Update -- 1985 - 2005 and Northern Kentucky's Future, A Comprehensive Plan For Development: An Update -- 1990 - 2010. In 1982, 1986 and 1991, these plans were adopted by the KC&MP&ZC, with slight modifications, as they applied to Kenton County.

This document, entitled Northern Kentucky's Future, A Comprehensive Plan For Development: An Update -- 1995 - 2015, is an update of the comprehensive plan adopted in 1991.

It is important to emphasize that this comprehensive plan is not a new plan for Kenton County, It is an update documenting what has occurred during the period since the previous update and what changes should be made to the 1991 Comprehensive Plan Update.

These actions have made it possible for individual legislative bodies to proceed toward adoption of zoning regulations and for the KC&MP&ZC to adopt subdivision regulations. The NKAPC aided in this effort by preparing a recommended model zoning ordinance and recommended model subdivision regulations some years ago. Periodically, the Model Zoning Ordinance has been updated. The NKAPC has initiated a number of text changes with the KC&MP&ZC on behalf of all legislative bodies in Kenton County on issues of area-wide significance. To date, all but one legislative body in Kenton County has adopted the recommended model zoning ordinance, with modifications, and the KC&MP&ZC has adopted the model subdivision regulations which have effect in all cities and in the unincorporated areas of the county. These regulations are being administered by the NKAPC staff on behalf of the KC&MP&ZC.

The NKAPC staff has completed a full update of the previously prepared recommended Model Zoning Ordinance and will be submitting it for review to the

NKAPC and KC&MP&ZC following adoption of this Plan Update. The county's subdivision regulations are continually reviewed and amended by the KC&MP&ZC as needed.

STATUTORY REQUIREMENT

The area-wide comprehensive planning process is one of the basic requirements which must be fulfilled by the NKAPC, as defined by Chapter 147 of the Kentucky Revised Statutes. This update, the original 1972 Comprehensive Plan, and the 1981, 1986 and 1991 Comprehensive Plan Updates, have all been structured to meet the statutory requirements for local planning units under Chapter 100 of the Kentucky Revised Statutes. This update fulfills the specific requirements of Chapter 100.197, which calls for the research and all elements of the Comprehensive Plan to be reviewed and amended, if necessary, at least once every five years.

GENERALITY OF COMPREHENSIVE PLAN

The contents of the comprehensive plan are intended to serve as a guide for public and private actions and decisions in order to assure development of public and private property in the most appropriate relationships. The land use plan element is not intended to provide precise boundaries between proposed land uses. Rather, it is designed to provide land use recommendations for general areas. Additionally, various areas may be suitable for more than one type of land use. The question/evaluation of whether a given land use might be appropriate for a given area must be viewed considering the comprehensive plan as a whole, including the goals and objectives, development concepts, other elements (i.e., land use, transportation, community facilities), and other regulations which are determined to serve the purposes of the comprehensive plan.

JURISDICTIONAL BOUNDARIES

The 1972 Comprehensive Plan and the 1981 Update were prepared as a single-area effort, not as a series of comprehensive plans for each political jurisdiction. The 1986 and 1991 Comprehensive Plan Updates continued that philosophy, however, detailed analysis and planning were not prepared for Campbell County because of that county's withdrawal from the Northern Kentucky Area Planning Commission in 1984. This philosophy will also be continued into this most current update. Once again, however, detailed analysis and planning will be prepared only for Kenton County. Activities and known planning efforts within Campbell County, Boone County, Pendleton County, Grant County, and in adjacent Ohio areas (as part of the three state OKI Regional Council of Governments), however, have been considered in the update process for Kenton County. In fact, most of the Comprehensive Plan Updates for Campbell County cities and the unincorporated area have been prepared under contract by the NKAPC.

METHODOLOGY

The method used to update the comprehensive plan consisted primarily of evaluating existing conditions, changes which have occurred between 1991 and 1996, development plans proposed by the public and private sectors, and a general re-evaluation of previous plan recommendations. The 1986 and 1991 Comprehensive Plan Updates were evaluated to determine if projections and anticipated events were occurring as expected (e.g., population growth, school enrollment, extension of water and sewer facilities, etc.). The following steps comprise the process to update the Area - Wide Comprehensive Plan.

1. Establishment of a joint task force, comprised of members from the Northern Kentucky Area Planning Commission and the Kenton County and Municipal Planning and Zoning Commission, to review all elements of the Comprehensive Plan Update.
2. On August 30, 1995, the Northern Kentucky Area Planning Commission and the Kenton County and Municipal Planning and Zoning Commission sponsored a "Town Meeting" at Thomas More College to kick off the Plan Update process. The purpose of this meeting was to solicit input from citizens at the very beginning of the update process. This input would then be used to guide more in-depth discussions throughout the remainder of the Plan Update process.

The Town Meeting was conducted using the nominal group method, whereby each individual in attendance had equal opportunity to offer input. The process included ranking of issues by all persons in attendance. The five highest prioritized issues to emerge from the Town Meeting are as follows:

1. Set aside areas for recreation and open space
2. Plan for mass transportation
3. Provide infrastructure before development (tie)
Against consolidation of governments (tie)
4. Build light rail and mass transit systems
5. Include environmental concerns in planning

The complete list of issues identified at the Town Meeting is available at the offices of the Northern Kentucky Area Planning Commission. While some issues listed were beyond the scope of this Plan Update and are not specifically addressed herein, most issues have been addressed and are included in this Plan Update.

3. In September and October of 1995, seven focus groups were formed and meeting dates were established. The purpose of these groups was to assist the NKAPC staff and the Joint Task Force by further discussing, clarifying, and making recommendations on issues identified at the Town Meeting; and by identifying other issues important for consideration and action in this Plan Update. These focus groups met on a monthly basis from September of 1995,

through March of 1996, and completed their effort with a summary report presented to the Joint Task Force in May of 1996. The seven focus groups covered the following topic areas:

- Transportation
- Future Land Use and Environment
- Community Facilities
- Water, Sewer, Storm Water and Solid Waste
- Riverfront and Urban Area
- South Kenton County
- Information Technology and Infrastructure

Copies of the summary reports of each focus group are available at the offices of the Northern Kentucky Area Planning Commission. A list of persons who assisted with each focus group are included in the acknowledgements at the beginning of this Plan Update.

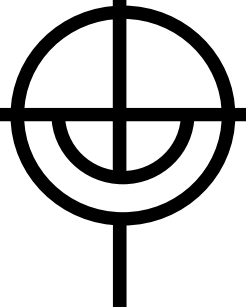
4. Concurrently, with the formation and meetings of the focus groups, NKAPC staff provided each local legislative body with copies of the 1991 Land Use Plan map for their jurisdiction. Each legislative body was asked to identify proposed changes to the land use plan map and/or to identify other issues they wanted addressed during the Plan Update process. Upon request, NKAPC staff attended meetings of the legislative bodies to assist in this effort. All information and requests received from the local jurisdictions were "logged in" for review by the Joint Task Force.
5. The Statement of Goals and Objectives, which served as the framework for the 1991 Comprehensive Plan Update, was further evaluated for any changes -- they were readopted without change on January 4, 1996.
6. Focus groups presented their findings, recommendations and comments to the Joint Task Force at two meetings held in May of 1996.
7. NKAPC staff compiled information and requests from zone change issues, the Town Meeting, focus group results, local jurisdiction input, research of existing conditions, projections of future needs, and Joint Task Force members comments into an "issues log". Reviews and preliminary recommendations were then made for each item by the NKAPC staff. Upon completion of these reviews, the Joint Task Force held a series of meetings from June of 1996 through October of 1996 to review and approve or modify NKAPC staff's preliminary recommendations. This process then provided the preliminary recommendations used by staff to prepare the first draft of the 1996 Comprehensive Plan Update.
8. Members of all legislative bodies, the general public, and other interested agencies, who were previously invited to provide input to the Joint Task Force,

were invited to review preliminary recommendations of the current update of the comprehensive plan;

9. As an effort to receive questions and comments from property owners whose properties might be affected by possible changes in how their property is designated on the current Land Use Plan vs. the Update to the Plan, all such affected property owners were notified by mail. This major effort to assure public awareness was made possible by use of NKAPC's Geographic Information System¹. This computerized system permitted a digitized picture of the current Land Use Plan, overlain by the update to the Plan, and further overlain by property ownership records, which identify all property addresses. A simple mail merge was then performed and letters were sent to every property owner whose property was designated differently on the Plan Update from the current Plan.
10. Prior to the public hearing held by the KC&MP&ZC, the NKAPC/KC&MP&ZC Joint Task Force held three public meetings at various locations within the county to receive additional input; and
11. A public hearing was held by the KC&MP&ZC on December 9, 1996, for the purpose of receiving any further input, with subsequent adoption of the Comprehensive Plan Update on December 11, 1996.

¹ NKAPC's Geographic Information System, referred to as *PlaNet* GIS, was created and funded by a partnership of five public agencies -- Northern Kentucky Area Planning Commission, as lead agency/managing partner; Kenton County Fiscal Court; Kenton County PVA; Sanitation District No. 1; and Northern Kentucky Water Service District.

CHAPTER II GOALS AND OBJECTIVES



CHAPTER II GOALS AND OBJECTIVES AND DEVELOPMENT CONCEPTS

GENERAL

The Goals and Objectives Element of the Comprehensive Plan, which is one of the four statutorily required elements of the Comprehensive Plan, continues to be a fundamental part of the comprehensive planning process, identifying the overall ends toward which the planning effort is to be directed. Chapter 100 of the Kentucky Revised Statutes requires a Statement of Goals and Objectives, which ". . . shall serve as a guide for the physical development and economic and social well-being of the planning unit". These statutes also require that:

"The planning commission of each planning unit shall prepare and adopt the statement of goals and objectives to act as a guide for the preparation of the remaining elements and the aids to implementing the plans. The statement shall be presented for consideration, amendment and adoption by the legislative bodies and fiscal courts in the planning unit. . .". ". . . If the goals and objectives statement is not proposed to be amended, it shall not be necessary to submit it to the legislative bodies and fiscal courts for action. . .".

The Goals and Objectives, utilized in development of the adopted 1981 Comprehensive Plan Update, were adopted by the NKAPC, KC&MP&ZC, and all legislative bodies in Kenton County. When the 1996 Comprehensive Plan Update process began, these Goals and Objectives were again evaluated. Both the NKAPC and the KC&MP&ZC adopted the Goals and Objectives as contained in the 1981 Comprehensive Plan without change. As required by Kentucky Revised Statutes, the Goals and Objectives have been evaluated as part of this most current update of the comprehensive plan. Their general intent and direction was discussed with officials and representatives of public and private organizations, agencies, boards, various civic and special interest groups, citizens, citizen groups, and again all of the legislative bodies. On December 13, 1995, the NKAPC reviewed the goals and objectives used in the 1991 Comprehensive Plan Update, determined that the goals and objectives used in the 1991 Area-Wide Comprehensive Plan Update were still valid, and adopted Resolution Number 761, readopting the Goals and Objectives Element. The NKAPC then submitted the goals and objectives to the KC&MP&ZC and recommended similar action to be taken by that body. On January 4, 1996, the KC&MP&ZC held a public hearing pertaining to the submitted goals and objectives. Following that public hearing, the KC&MP&ZC determined that the goals and objectives used in the 1991 Kenton County Comprehensive Plan Update needed no change and were sufficient to serve as a guide and foundation for the 1996 Comprehensive Plan Update in Kenton County. The KC&MP&ZC readopted the goals and objectives without change. This is not a surprising result since the Goals and

Objectives are intended to be broad, long-range, and all-encompassing in composition. In fact, well formulated Goals and Objectives can be likened to a "Constitution" -- a document which should experience little change over the years, and within which all subsequent lesser laws (in this case, plan elements) should be based and kept current.

These Goals and Objectives have been used as the bases upon which all other elements of the update were built. They will continue to be used as the bases upon which all proposed plan and zone change requests and proposals for new subdivision development shall be judged.

GOALS AND OBJECTIVES

HOUSING - RESIDENTIAL DEVELOPMENT

1. To provide safe and sanitary housing to all residents.

Effort should be made to eliminate dilapidated and unfit housing; rehabilitate declining housing; conserve the existing supply of sound housing; and add new housing; as necessary.

2. To provide a variety of housing types and residential development to accommodate different needs and desires of the population.

Effort should be made to encourage a variety of residential densities and housing types to meet the needs and desires of a range of family sizes, age groups, and income levels and to ensure that equal opportunity in choice of housing by all elements of the population is provided throughout the region.

3. To achieve the goals of this element without unduly disrupting the goals of other elements.

Effort should be made to ensure that areas which are proposed to be developed for purely residential purposes are protected from the intrusion of incompatible land uses. Development of new urban residential areas should be promoted only where they can be reasonably and economically served with essential public services.

TRANSPORTATION

1. To develop a transportation system which strives to reduce energy consumption and which provides convenient access to and from residential areas, employment centers, education and health care facilities, and centers providing goods and services.

Effort should be made to shorten travel trips by planning for the location of various land use types so that they minimize distances between major points of origin and destination both for energy consumption reduction and for convenience purposes. Such factors should be considered, particularly when planning the relationship of major centers of activity and employment to residential areas. There should also be effort made to provide for the integration of transportation modes to satisfy the unique needs of various segments of the population, not only for the normal home to work, home to shopping, and home to school type trips, but also for the special needs of elderly persons, children, handicapped persons, low income level families, and others who are highly dependent upon such varied transportation modes.

2. To develop a transportation system capable of moving people and goods throughout and beyond the area in the safest and most convenient manner.

Effort should be made to develop a transportation system based on anticipated travel movements of people and goods throughout the region. Effort should also be made to develop a balanced total transportation system which incorporates and integrates all transportation modes (including air, water, rail, transit, roadway, and pedestrian access facilities).

3. To achieve the goals of this element without unduly disrupting the goals of other elements.

Transportation facilities (including storage and terminal facilities) should be developed so as not to unnecessarily intrude into, or traverse through, other major areas of concentration. Such facilities should be developed so that they do not usurp a disproportionate share of critical urban land area; so that they do not encourage the escalation of urban sprawl; and so that any adverse effects on existing and proposed land use development along their corridors are minimized.

GOODS AND SERVICES

1. To ensure that the amount and location of facilities providing goods and services is based on need.

Effort should be made to determine the amount and location of facilities providing goods and services, primarily on the basis of what can be supported. Inherent in this objective is the constant need to discourage over-development or premature development of facilities providing goods and services, which are not based on sound findings of need.

2. To locate and design centers providing goods and services so as to maximize consumer safety and convenience while minimizing any adverse environmental effects.

Centers providing goods and services should be conveniently accessible to the population. Different types of centers should be provided which serve the unique needs and desires of different types of consumers -- examples are as follows: centers oriented to serving immediately surrounding residents with daily convenience needs, centers intended to serve the transient public, major commercial centers offering both convenience and comparison goods and services to customers from a large service area. In all cases, design of new or redeveloped facilities, providing goods and services, should contain adequate off-street parking facilities, reasonable control of ingress and egress, landscaping, reasonable separation of vehicular and pedestrian traffic, etc. Such centers should be located and designed so as to minimize any adverse environmental effects.

3. To achieve the goals of this element without unduly disrupting the goals of the other elements.

Effort should be made to ensure that centers providing goods and services are planned and developed as an integral part of the total area's development. Such foresight should ensure that: their existence is enhanced, rather than disrupted, by major transportation facilities; they are reasonably located in relationship to other areas providing similar goods and services; adequate markets have been reasonably assured; and that the location and design of such centers will not result in a disrupting influence on surrounding development. Effort should also be made to ensure that areas providing goods and services are protected from the intrusion of incompatible land uses.

EMPLOYMENT

1. To provide for a stable and diversified employment capability.

Effort should be made to provide a variety of employment opportunities oriented to various segments of the labor force and the skills they exhibit, so as to minimize unemployment levels. Effort should be made to determine and attract those types of industrial and commercial activities which, according to the most recent economic studies, appear to have the greatest potential for success in this region and are least susceptible to fluctuations in the economy.

2. To provide for an adequate amount of well located industrial development to meet anticipated industrial employment needs.

Effort should be made to locate areas planned for industrial development so as to shorten the work trip from the living areas of the resident labor force and reduce energy consumption. Anticipated industrial employment should be used as a guide in measuring the amount of land which should be allocated for future industrial development. Areas which exhibit particularly desirable characteristics for industrial development should be identified, planned, and regulated for such use without the constriction of arbitrary jurisdictional limitations.

3. To achieve the goals of this element without unduly disrupting the goals of other elements.

Effort should be made to ensure that industrial areas are afforded the same measure of protection against the intrusion of incompatible land uses provided to other land use types. Conversely, significant effort should be made to ensure protection to areas surrounding employment centers. Elimination of undesirable emissions or intrusions, which may result from the existence of industry, will be necessary in order to minimize any adverse environmental effects caused by such uses.

EDUCATION

1. To provide a quality education to all children in the area.

Effort should be made to ensure provision of a minimum level of education to all children in the area. It will be necessary to provide adequate facilities and personnel to fulfill the needs of such a basic quality education program. There will also be a need to provide for special education programs for children who are handicapped, retarded, or otherwise would not benefit from attending general education classes.

2. To provide for a variety of additional educational opportunities to serve the unique needs, desires, and interests of the population.

Provision should be made for adequate higher educational facilities to serve the population of the area and the surrounding region. Provision should also be made for facilities and programs offering specialized education for pre-school children, the general adult population, persons seeking vocational training, and other specialized types of educational programs.

3. To provide educational facilities conveniently located to their intended service population but without racial disproportion.

Effort should be made to locate elementary educational facilities so that the student enrollment is within a reasonable walking distance in urban areas.

Elementary education facilities in non-urban areas, secondary education facilities, higher education centers, and specialized education facilities should be provided in locations which are easily accessible to the population of their service areas. Location and size of educational facilities should be based entirely on their ability to provide the most effective education program, and should not be constricted by arbitrary jurisdictional boundaries or special interest considerations. However, care should be taken in all education facility planning to ensure that racial disproportion does not exist.

UTILITIES

1. To provide a dependable and adequate supply of all essential utility services to the population.

Effort should be made to ensure that areas of existing development, new development, and redevelopment are provided with all essential utility systems, and in particular to ensure the simultaneous provision of a safe water supply and adequate centralized sewerage facilities. Also, these systems should have the ability to serve existing and anticipated service needs. In this connection, adequate safety factors should be incorporated into the design of all essential utility services to ensure dependability of the systems under normal conditions and the existence of reasonable auxiliary or support systems during emergency situations.

2. To provide all essential utility services as economically as possible.

Effort should be made to ensure that essential utility services are provided in coordination with other plan goals so that uncoordinated and uneconomical development is not encouraged. In this regard, extension of utility systems can become one method of controlling the direction and timing of new development.

PUBLIC HEALTH

1. To provide adequate public health facilities to protect and care for the population.

Effort should be made to provide adequate and well located public health centers to serve the entire population. In addition, constant effort should be made to support the provision of good public health programs which seek to accommodate the unique needs of different segments of the population.

2. To provide an effective comprehensive program to prevent sickness and disease.

Concerted effort should be made to ensure provision of an adequate, sanitary, and safe means of collecting, transporting, and disposing of solid wastes and all point and non-point source wastewater. An ongoing effort should be made to provide an effective program of all forms of pollution control. Effort should also be made to provide an effective comprehensive program of health care and disease prevention by providing adequate facilities staffed by adequate personnel made readily available and easily accessible to the population.

PUBLIC SAFETY

1. To provide an effective program of public safety to prevent, where possible, and minimize, when necessary, injury or damage to person or property.

Effort should be made to provide appropriate levels of public safety services to the entire area. This is meant to be inclusive of, and primarily aimed at, the prevention aspects of public safety. Specific areas of concern, in this regard, are programs for fire and police protection, civil defense programs, flood protection programs, traffic safety programs, etc. This will require provision of adequate facilities, equipment, and personnel located on the basis of need, and not constricted by arbitrary jurisdictional boundaries or special interest considerations.

RECREATION AND OPEN SPACE

1. To provide an adequate amount and variety of recreational opportunities to satisfy the full range of needs of the population.

Concerted effort should be made to provide a wide variety of types of recreational facilities programs to meet the year round desires and needs of various age and interest groups.

2. To provide basic recreation and open space facilities and programs which are conveniently located and accessible to the population.

Effort should be made to provide for recreation and open space facilities which are both region oriented, containing a variety of active and passive recreation pursuits, and neighborhood oriented, which are primarily aimed at satisfying the day-to-day desires and needs of immediately surrounding residents.

3. To achieve the goals of this element without unduly disrupting the goals of other elements.

Effort should be made to ensure the incorporation of design for recreation and open spaces as an integral part of emerging urban development or redevelopment. Such effort should result in recreation and open space areas

which complement and enhance surrounding development, rather than take on the appearance of appendages added out of necessity. Constant effort should be made to protect recreational areas from intrusion of other type uses so that they may continue to serve their intended function adequately.

CULTURAL FACILITIES

1. To provide for an adequate amount of well located cultural facilities to serve the basic needs of the population.

Effort should be made to provide for the establishment of programs and institutions which promote the cultural pursuits of all segments of society. In this connection, it would be necessary to provide for adequate, well located, cultural facilities oriented primarily to serving local residents (e.g., churches, theaters, libraries).

2. To coordinate the provision and location of specialized types of cultural facilities in this area with facilities throughout the metropolitan region.

Constant effort should be made to coordinate the provision and location of specialized cultural facilities in order to avoid unnecessary duplication. An ongoing effort should be made to promote coordinated and cooperative use of specialized region-serving cultural facilities wherever they may be located.

RESOURCES AND ENVIRONMENT

1. To ensure the most efficient and reasonable utilization of the area's physical resources while ensuring that any short-term uses of man's environment will be to the long-range benefit of all.

Constant effort should be made to ensure wise utilization or conservation of the area's resources to maximize advantages, simultaneously minimizing any detrimental effects such utilization may cause. Such efforts would encompass a broad range of concerns such as: identifying all environmentally sensitive areas and areas of critical concern; planning and scheduling the use or non-use of such areas; and also determining the use of, and planning for the restoration of, any land areas which might be damaged due to some resource extraction or temporary use. It should also encompass an effort to preserve, conserve, and enhance unusual man-made projects or natural features, which have some unique historical, architectural, or natural value. Effort should also be made to identify and plan for the stabilization of those areas which might be best retained in their rural-like character promoting their value as agricultural resources and/or adequate land reserves for the future.

2. To preserve a pleasant environment for the population.

Constant effort should be made to ensure that all areas are provided with adequate light and air and pleasing surroundings. This will require adequate control and monitoring of all potential contributors to all forms of pollution (air, water, visual, noise, etc.). Provision of sufficient open space in conjunction with all types of new development and redevelopment will also be necessary if this objective is to be achieved.

3. To ensure that planning adequately considers methods of reducing energy consumption and that adequate protection is afforded all energy resources.

Constant effort should be made to urge planning decisions which recognize the need to reduce energy consumption through realistic land use strategies and to recover energy resources, while protecting the environment and making such land reusable.

GOVERNMENT

1. To ensure that all necessary functions of government are performed in the most responsible manner possible.

Effort should be made to structure government and government activities to meet the immediate needs and long-term objectives of the population. Such structuring should involve and promote responsible community leadership, both in and out of government, which should be accessible and responsive to the public. Such structuring should also ensure the following: (1) enactment, and the equitable and expeditious administration of uniform laws; (2) removal of arbitrary jurisdictional barriers to permit essential public services to be efficiently and economically provided and to ensure that benefits gained and problems encountered anywhere in the area are shared equitably and solved cooperatively by the entire area; (3) achievement of fiscal responsibility, including adequate and equitable financing of services and facilities; (4) appointment of an adequate number of qualified administrative and service personnel to effectively conduct government business; (5) coordination of activities and operations of all government functions to achieve efficiency and avoid duplication; (6) capability to deal effectively with area-wide problems and coordinate activities with other major levels of government; and (7) realization of a greater capacity to achieve the basic goals and objectives as envisioned herein.

RELATIONSHIP BETWEEN GOALS AND OBJECTIVES AND PLAN RECOMMENDATIONS

The NKAPC cautions that these Goals and Objectives are not to be interpreted narrowly, and they are not to be used independently of each other.

Throughout this document, "Recommendations" are set forth to achieve one or more of these Goals and Objectives. So that the reader may recognize the relationship between a -- "Goal/Objective" -- and the manner in which it is intended to be realized -- "Recommendations" -- applicable Goals and Objectives have sometimes been restated and emphasized at strategic points in the text -- where such recommendations are being discussed.

DEVELOPMENT CONCEPTS

Development concepts represent a further degree of detail than the Goals and Objectives. These are intended to be used for more site specific evaluation of land use recommendations and development proposals. The following concepts remain virtually the same as those included within the 1991 Plan Update. However, some modifications have been made in this Plan Update in response to input from the focus groups that met to provide input into this Plan Update. Throughout descriptions of these concepts is a recurrent theme, which is the need to assure all planning for the future considers the concepts of Sustainable Development. Although, not the simplest concept to define, Sustainable Development, is an effort to assure sensible and sensitive coordinated use of our social, environmental, physical and economic resources. The concept encompasses the importance of always considering the implications of "today's" development on future generations and to try to take mutual advantage of the valuable characteristics of the sometimes competing areas of land preservation and land development. In fact, good planning for social and environmental interests often results in sound economic development. Meeting the needs of and providing for a wholesome lifestyle for our present generations without compromising opportunities for future generations is a worthy objective this plan aims to realize.

RESIDENTIAL

- *Density is the major determinant of residential development.*
Residential densities provide the major bases for "utilities" and community facilities systems" planning.
- *A variety of residential densities is desirable.*
Various densities would accommodate a variety of housing types to serve a variety of economic and social desires and capabilities.

- *The type of development that should occur within an area should be based, in part, upon the unique characteristics of the development site and the character of adjacent development.*
Such a concept would insure that the proposed development would be compatibly incorporated into the area and would enable the development to best utilize the area's existing features.
- *The density of development for undeveloped land should be based on considerations such as: (a) the density of adjacent developed areas, of which the undeveloped land would be a logical extension; (b) access to major transportation facilities; (c) the nature of adjacent activities; and, (d) residential development in rural areas should be designed to maintain existing rural character of open space and the appearance of low density.*
Such a concept would result in development which is compatible with surrounding land uses and which would not result in generating high volumes of traffic through low density areas.
- *Multi-family residential development should occur in areas which: (a) are located near activity centers or major access ways; and (b) are desirable for residential development, but are characterized by topographic problems, unusual shape, or otherwise unsuitable for single-family residential development.*
Such a concept would afford a greater number of people immediate access to activity centers and major streets, would reasonably assure that undue traffic volumes will not be drawn through lower density type development, and would provide for the utilization of "difficult to develop" parcels of land.
- *The increase or decrease of density can function as a transition between incompatible land uses.*
Such a concept would enable the provision of a variety of land uses which might otherwise result in incompatible land use relationships.
- *In areas where urban services cannot economically be provided, and are not anticipated to be provided, within the planning period, residential development should be at a very low density and rural in character.*
Such a concept will provide for development in areas which will not demand or need the extension of services that cannot be feasibly provided.
- *The preservation and restoration of housing should be encouraged in selected areas.*
Such a concept would provide quality housing for the existing and future population, and would preserve structures which have architectural and/or historical significance.

- *Revitalization of central city core areas, by planned redevelopment and rehabilitation of residential uses, should be encouraged.*
Such a concept would aid in preserving a valuable resource, provide much needed variation in residential types and densities and maintain and enhance the viability of such urban areas.

COMMERCIAL

- *Proposed commercial uses should be located on the basis of: (a) adequate service population, according to forecasted population distribution; (b) access via good transportation facilities; and (c) relationship to surrounding development.*
Such a concept would discourage over-development of commercial activities and result in commercial development which is easily accessible to the population and adequately buffered from adjacent incompatible land uses.
- *In some cases, mixing of residential and commercial use type is desirable (e.g., in certain areas 2nd floor residential use above 1st floor commercial type uses and in mixed use type of development may be desirable). It's imperative that such mixing be well planned .*
In such instances, critical attention needs to be paid to off-street parking needs/requirements and continuous assurance of compliance with all regulations of commercial use type changes within such structures. Shared parking provisions should be encouraged to insure good use of our land resources.
- *Commercial concentrations should be developed as planned areas containing the general characteristics of a "shopping center".*
Such a concept would minimize traffic control problems and safety hazards thus maximizing consumer shopping convenience.
- *Major commercial concentrations should be encouraged along only one side of major highway facilities in a given area.*
Such a concept would minimize traffic capacity problems and safety hazards, decrease the number of conflicting turning movements, and limit cross traffic movements between activities on opposite sides of the major highway.
- *Spot and strip commercial developments are undesirable and should be discouraged.*
Such developments are usually characterized by: (a) inadequate room for expansion as the need for additional commercial services increases; (b) little or no coordination of vehicular or pedestrian access; (c) inadequate parking; (d) multiplicity of curb cuts; and (e) additional trip

generation between facilities, resulting in inconvenience for shoppers and unnecessary additional traffic volumes and hazards on the adjacent street network.

- *Existing commercial activities, which are presently located in areas that are not desirable for commercial development, should either be redeveloped or rehabilitated in a manner that would be more in keeping with uses of the surrounding area (not expanded).*

Such a concept would: (a) eliminate or control problem types of development and help to insure that such uses would better blend in with the or community; and (b) discourage over-development of commercial activities, which could have the effect of endangering the economic health of well-located commercial developments.

- *In rural settings, commercial development should be sized and located at a scale consistent with the population and area it serves.*

Rural Commercial Development, serving a smaller population base and drawing from a larger service area should be located and sized accordingly, but developed using the same principles of development embodied in the preceding concepts (e.g., characteristics of a "shopping center" -- adequate off-street parking, controlled ingress and egress, etc.)

INDUSTRIAL

- *Locations of industrial type development should be based on area - wide considerations -- specifically, not an attempt to locate a certain amount of industrial development in each political subdivision. Location should be determined on the basis of the advantageous characteristics any given area exhibits for such development and without consideration to arbitrary jurisdictional limitations.*

Such a concept would result in utilization of the most suitable and desirable land for industrial development and the location of employment centers which would be accessible to the greatest number of persons.

- *Land which is most advantageous for industrial development should contain the following characteristics: (a) good access to major transportation facilities; (b) good proximity to urban development (employment sources); (c) relatively flat land; and (d) a full range of urban services.*

Industrial development generates significant traffic volumes (automobile, trucks, and sometimes rail services) necessitating good access to major highways and to employment sources (urbanized areas) in order for the street network to be able to accommodate the traffic volumes and prevent the generation of traffic through low density areas. Most industrial development, by its very nature, requires central sanitary sewer services and water supply, gas and electric service, higher levels of police and fire protection, etc. Such development often also depends upon water and rail for delivery and/or distribution of products and supplies.

- *Land which can be most advantageously used for industrial purposes should be identified and reserved for industrial use and encouraged to be exclusively used for such purposes.*

Land which is most advantageous for industrial development in the Northern Kentucky Area is at a premium. Thus, identification and reservation of such land is necessary. Increased industrial development in these well located areas would increase employment opportunities. It would also result in an increased tax base for the provision of public services; and insure better use of transportation systems, thus utilizing less energy and causing less pollution to the environment.

PHYSICALLY RESTRICTIVE DEVELOPMENT AREA

- *Areas which are flood-prone (within the 100-year floodplain) and/or land-slide prone (slopes of 20% and greater and/or areas which contain known soil and/or geologic formation problems) should be preserved, or very rigidly controlled.*

Such a concept would prevent unnecessary construction problems which might consequently result in hazardous or dangerous conditions; and, encourage certain areas to be maintained in their natural open state as an integral part of the landscape.

- *Guidelines prepared and adopted by the Hillside Trust, "A Hillside Protection Study for Greater Cincinnati" (1991) should be utilized when development is proposed in sensitive hillside areas.*

Use of these guidelines will help minimize potential problems and to maintain the natural character of these areas.

COMMUNITY FACILITIES

- *Locations of existing and future community facilities should be based on an area-wide approach to the provision of such services. Such locations should also be based on logical service areas, defined according to generally accepted standards promulgated by authorities in each of these specialized fields.*

Such a concept would insure adequate provision of well located facilities without unnecessary duplication.

- *The school -park plan concept should be utilized in development of both school and park facilities.*

These two types of facilities serve similar population groups, and there exists a great potential for coordination and joint use of facilities to the benefit of the tax paying public. For example, this could also include other resource sharing between the community and schools to include such facilities as use of indoor gymnasiums, libraries, auditoriums and other facilities.

- *Appropriate authorities and private developers should be encouraged to assure realization of community facilities planning by requiring and/or incorporating designs for such facilities into the early stages of development.*
Such early incorporation shall serve to insure that such facilities do not appear as "after-thoughts" located only where remnants of undeveloped land exist and that capital improvement planning for completion of such facilities can be reasonably programmed.

ENVIRONMENT

- *Centralized water supply and centralized sewerage facilities should be developed in a coordinated fashion, to properly service development in urban areas.*
The extension of water supply into areas not served by centralized sewerage facilities is known to increase water usage and wastewater production and often overloads the capacity of subsurface disposal systems, resulting in ground pollution and unhealthful conditions.
- *Septic tanks and other individual on-site sewage disposal systems should not be used to serve urban-type development. In rural areas, where extension of public sewer service is unlikely to occur, residential development should incorporate innovative lot design with adequate lot sizes or other open areas to accommodate on-site disposal*
Widespread use of such sewage disposal methods can result in hazardous environmental conditions (i.e., water and ground pollution, offensive odors, bacteria breeding, etc.). Whenever possible development should occur where public sewage treatment is available. In the absence of such treatment, where on-site disposal is used, a variety of innovative technologies exist, which can be used to decrease the likelihood of pollution problems.
- *Land which is highly susceptible to hillside slippage and/or erosion should not be developed, or in extreme cases, development should be limited and strictly controlled.*
Such a limitation on development would prevent hazardous conditions and also result in maintaining the environmental quality of the area by preserving open space.
- *Development of lands should be strictly controlled, as it applies to the retention of existing trees and wooded areas.*
Such a limitation on development would prevent the unnecessary clearing of a site while maintaining and preserving the natural character of the environment.
- *Solutions to the solid waste management problem should be both long and short-range in nature and should consider collection and transportation,*

disposal methods, public vs. private involvement, time sequencing, cost alternatives, and environmental impact.

Solid waste "management" is intended to be an all-encompassing term inclusive of the study of amounts collected, methods of transportation and disposal, alternatives of private and public involvement (control and accountability), time sequencing of moving from short to long-range solutions, cost comparisons, financing alternatives, etc. Whatever methods are utilized/recommended, it is of critical importance that they be organized so as to avoid health hazards, provide reasonable accessibility without detrimentally affecting urban concentrations, take advantage of whatever techniques and methods of energy and resource recovery which prove to be within the practical support capabilities of the area, and that the problem be viewed on an area-wide basis.

- *Federal, state, and local performance standards should be strictly applied to all development.*
Such compliance should help to ensure adequate control of air, water, noise, and other types of pollution.
- *Erosion prevention and control techniques should be stringently applied to reduce sedimentation problems.*
Such control would: improve water quality; prevent damage to stream channels and siltation of storm sewer systems, which cause flooding of yards, basements, etc.; and prevent the loss of prime topsoil.
- *As development occurs, stream flow characteristics should be determined and recorded.*
Such an effort would establish a base - line for future water quality monitoring and potentially improve the health and safety of the population who rely on natural water sources.

ENERGY

- *Energy-efficient development should be promoted by employing those types of land use arrangements which will minimize the distance and number of vehicular trips to work, to commercial activities, to schools, etc. Such land use arrangements should also facilitate the provision of mass transit via the concentration and coordination of population and employment centers.*
Minimizing the distances and number of vehicular trips would reduce the amount of energy (fuel) consumed, and also reduce the impact of auto emissions (pollution) on the environment. Facilitating the provision of mass transit would decrease the dependency on, and use of, the automobile thus, improving air quality of the region, as well as increasing the opportunities and choices for travel.

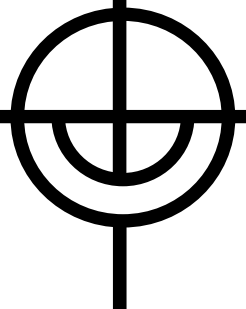
TRANSPORTATION

- *A balanced transportation system should be encouraged through the provision of a comprehensive multi-modal approach.*
Such an approach would achieve the most efficient utilization of all modes of transportation (e.g., air, water, rail, mass transit, highways, bicycle paths, pedestrian walkways, etc.).
- *Unnecessary and disruptive traffic should be minimized in residential areas through a combination of street improvements and other disincentives to discourage short cut traffic and the location of high volume traffic generators along major arterial streets, rather than along local streets.*
The generation of traffic through residential areas creates noise, pollution, and potential safety hazards which would be detrimental to the residential character of the area. It would also result in overloading the design capacity of streets not intended for such purposes, thus reducing the safety in residential areas.
- *Development on major arterial streets should incorporate adequately designed access controls.*
Such a concept would aid in maintaining existing and projected roadway capacities, and would provide for safe vehicular and pedestrian movements.
- *The increased use of, and provision for, mass transit as a significant mode of transportation should be strongly advocated.*
Such use of mass transit would result in a more efficient means of transportation, reduced energy consumption and air pollution, and making an alternative means of transportation more available to the population.

INFORMATION TECHNOLOGY

- *Availability of information technologies and infrastructure should be incorporated into all developments.*
Such an effort would help to establish that all sectors of the population have access to such technologies.
- *Provision for, and location of, information technologies should be accomplished in a manner which discourages redundancy and duplication.*
Such an approach would guide providers of such technologies into sharing and locating their facilities on the same site and structure. Such an effort would result in a more aesthetic man-made environment by reducing the number of facilities (e.g. towers, satellite receivers, etc.) to provide such services.

CHAPTER III
ENVIRONMENTAL
CHARACTERISTICS



CHAPTER III

ENVIRONMENTAL CHARACTERISTICS

GENERAL

Environmental characteristics of the study area remain essentially unchanged from descriptions contained in the 1991 Comprehensive Plan Update. They are summarized herein for this Plan Update simply to reduce necessity for reference to the previous document. This chapter summarizes those features used as predominant physical determinants in developing the recommended Land Use Plan: (1) topography; (2) flood prone areas; (3) areas of potential ground water supply; (4) areas containing seasonally high water tables; (5) information regarding depth to bedrock; and, (6) other selected features of engineering geology and natural resources.

[Recommendations for future land use are described in Chapter V.](#) It will become evident, therein, why the information included in this Chapter is so important and basic to this study.

PREDOMINANT PHYSICAL DETERMINANTS FOR LAND USE PLANNING

The 1972 Area-Wide Comprehensive Plan contained a series of maps and related text which describe physical features in some detail. All such information is constantly maintained and available for use in the NKAPC offices.

TOPOGRAPHY

The Northern Kentucky Area extends over a low Plateau of about 900 feet Mean Sea Level (MSL). The floors of the larger valleys vary from 200 to 400 feet MSL below the general level of the Plateau and are from one-half to three miles wide between rugged wooded slopes. Continual erosion of the Plateau has developed numerous ridges and steep narrow valleys which characterize the Northern Kentucky Area and have a significant effect on land development.

Land areas between 455 (normal pool elevation of the Ohio River) and 600 feet MSL contain the flood plains and terraces of the Ohio and Licking River valleys and their tributaries. These areas are relatively level and are where the earliest and most intensive development took place, particularly along the Ohio River at its confluence with the Licking River.

Land areas between 600 and 800 feet MSL are generally found along steep slopes of the major river valleys and comprise the narrow, winding, V-shaped valleys extending in from the two major rivers.

To date, most urban development has occurred on land with a slope of 12 percent or less. Areas of steeper slopes have been included within subdivisions, but most often as the undeveloped rear portions of deep lots or as "common open space".

Topography has played a major part in the development of the Northern Kentucky Area. However, new and more effective methods of earth moving and the pressure and necessity of need for more land to develop, has caused this limitation to be less and less of a deterrent. Use of these severe slopes for urban development purposes is already beginning to occur and will, undoubtedly, become a matter of even more major concern in future years. In some respects, this severe topographical condition may be considered an asset, in that it has resulted in a significant amount of "undevelopable" land area which can easily be retained in its natural open state, providing "breaks" in the urban landscape. It also provides the area with many reasonably simple storm water drainage solutions, not possible in flatter areas.

The severity of slope conditions in Northern Kentucky has had a significant effect on land use planning. [This will be further discussed, in some detail, in Chapter V.](#)

FLOOD PRONE AREAS

Northern Kentucky is characterized by some areas which are subject to periodic flooding, which is a factor of major consideration in planning for future land development. In fact, this characteristic is considered so significant that plan recommendations strongly urge that all new development, or redevelopment, be discouraged, or stringently controlled, where this most hazardous condition exists. Development should only be permitted in certain areas when adequate flood protection systems are constructed or flood proofing measures, approved by proper authorities, are taken.

The most hazardous flood danger conditions are prevalent immediately adjacent to major water bodies and streams. Primary areas of concern are: (1) the major permanent flowing water bodies; (2) areas identified by the Federal Emergency Management Administration (FEMA) the major rivers and tributary stream valleys and terraces subject to a 100-Year Flood -- a flood having an average frequency in the order of once in 100 years, although it may occur in any year (such delineations obviously are inclusive of those areas which are subject to flooding even more frequently); and (3) other land subject to periodic flooding (extent of potential headwater flooding delineated by the Northern Kentucky Area Planning Commission through interpretation of topographical mapping and other available flood information).

Importantly, a distinction should be made between those areas which are identified as "floodways", within which no development which would result in any increase in flood levels during the occurrence of a 100-year flood discharge should be permitted, and areas which are identified as "flood prone areas", within which development may be permitted with stringent control. The land use plan maps are not in sufficient detail to identify the difference between these classifications, only showing "flood prone areas". Since the last Plan Update, the NKAPC has digitized into its Geographic Information

System (GIS) detailed mapping, identifying the extent of these classifications. This information is available through mapping maintained in the offices of the Northern Kentucky Area Planning Commission.

POTENTIAL GROUNDWATER SUPPLY

Studies of soil characteristics and geological formations have identified certain areas which may contain various quantities of groundwater. Such areas are consequently subject to various degrees of groundwater pollution. Such information can be used in determining where on-site sanitary sewage disposal systems might be permitted, or conversely, where they should be prohibited. Areas which are characterized by conditions which render them subject to groundwater pollution are severely limited for any intensive use of on-site sewage disposal systems and should be so regulated. This limitation has, and should continue to serve as, one of the major determinants in discerning where concentrations of new development should or should not be encouraged, and where central sanitary sewerage systems should be required.

Where inadequately treated effluent is allowed to pollute underground water resources, that polluted water may finally be carried to the location of individual domestic wells or even possibly to some surface water body, which is ultimately used for water supply. Such conditions are dangerous and every effort should be made to insure that they are not allowed to occur. In Northern Kentucky, the Northern Kentucky District Health Department is responsible for authorizing permits for on-site sewage disposal systems. The NKAPC cooperates with that department's efforts to effectively review all proposals for sewerage systems.

Conversely, areas which contain good potential groundwater supplies are representative of areas where rural type development, using domestic wells, could prosper. In any case, Northern Kentucky's groundwater supply appears adequate only for minimal domestic use.

SEASONALLY HIGH WATER TABLE

Areas characterized by seasonally high water tables are representative of areas where on-site sanitary sewage disposal systems might be, or should not be, permitted. If the water table is characteristically high, on-site disposal systems cannot function adequately and their use will probably result in serious health problems. Less of a problem, but still important to recognize, is that areas with high water table conditions may also be problem areas in terms of periodic basement flooding, infiltration into sanitary sewerage systems, and may present some problems to construction in general.

DEPTH TO BEDROCK

Information concerning depth to bedrock can be important for many considerations of future land development. For example, if depth to bedrock is very shallow, construction of basements, pipelines, etc., may be difficult due to the necessity of excessive ripping through rock to construct such facilities.

The greatest depths to bedrock are found in the extreme northwest part of Kenton County in the Villa Hills/Crescent Springs area, along the Dixie Highway Corridor, and the Licking River Valley.

OTHER SELECTED FEATURES OF ENGINEERING GEOLOGY AND NATURAL RESOURCES

Information on engineering properties of soils and rocks in Kenton County, included herein, is necessarily general for the purpose of long-range planning. When any new development, mineral extraction, or other such ventures are considered, close scrutiny should be given to the more detailed information available through on-site investigation.

Soils

Soils of the planning area have been the subject of reports prepared by the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture. These reports show the extent and location of the various soil types in the planning area, and delineate favorable and unfavorable characteristics of each soil type.

Generally, soils of the area are of three predominant types: alluvial, residual, and glacial. Characteristics of these types of soils are generally described in the earlier 1972 Area-Wide Comprehensive Plan and the earlier NRCS studies. Regardless, further detail, for purposes of construction, will be necessary in most all cases, likely through necessity of an on-site soils report. All soil data has been digitized into the NKAPC GIS and is available for use through the offices of NKAPC. [Description of the NKAPC GIS \(Geographic Information Systems\) is contained in Chapter IX.](#)

Surface and Subsurface Geology

Land forms of Kenton County are divided into four basic groups: (1) glacial outwash terraces -- predominant in those areas immediately adjacent to the Ohio River and consisting of deposits of silt, sand, and gravel that accumulated from melt waters off the glacial ice; (2) alluviated valleys -- the Ohio and Licking Rivers flow in the most predominant alluviated valleys, which are filled with unconsolidated silt, sand, and gravel that have been deposited by the streams occupying them; (3) limestone Plateaus -- represented by the upland areas which have relatively flat slopes and steep side slopes and whose rock formations have enabled them to resist weathering and erosion over the years (the northern part of Kenton County is characterized by these Plateaus, where close stream spacing produces a fine topographic texture); and

(4) shale uplands -- found more often in the southern portion of Kenton County where streams are farther apart and less deeply incised.

Earth Stability

Movement of soil under loads is encountered in many areas throughout Kenton County. These movements range from long-term consolidation of silty soils to the relatively rapid flow or sliding of clay soils. Silty soils, particularly those found in the valley and vicinity of Banklick Creek and the Ohio and Licking Rivers, consolidate when loaded and settle. Cracking of house foundations in the Covington area is believed to be the result of this type of consolidation. The extent of potentially unstable soil conditions in the planning area is unknown. However, existence of these types of soil conditions, when combined with the existence of the Kope geologic formation and steep slopes, is usually indicative of very severe landslide potential problems. Only detailed on-site investigation can provide sufficient information to determine building characteristics of such areas.

Pipeline Construction

Adequate cover and protection for pipeline construction will be found in most of the valley areas, however, due to the generally shallow depth of soil cover, the upland surfaces may present localized problems where pipes must be buried below the depth of frost penetration. Groundwater of the planning area is not usually corrosive and ordinary coatings for pipe should withstand corrosion. Adequate backfill precautions should be taken for concrete pipe placed in leached soil horizons.

Underground Construction, Storage, and Disposal

Massive continuous beds of limestone occur in one of the deeper formations providing excellent possibilities for underground construction. Controlled excavation for such purposes would have the advantage of constant temperature and humidity and would have good earthquake resistant characteristics. Aquifer characteristics, which permit underground storage potential, exist in this area. However, prior to the use of these aquifers for such purposes, detailed investigation should be made to insure that no detrimental effects will develop from such use. This is a major and important consideration for further study, considering the significant and growing problems associated with disposing of hazardous wastes.

Reservoirs and Small Dams

The steep and deeply incised nature of the valleys, throughout Kenton County, provides outstanding opportunities for development of reservoirs and small dams. The impermeable nature of the upland clayey soils and of the shale slopes aid in the catchment and retention of water. More serious consideration should be given to this potential for use, as necessary, for storm water retention basins, flood control, and stream flow augmentation purposes, and for potential multi-use as recreational facilities, etc.

Materials for Construction

Rock, as a material for construction, is plentiful throughout Kenton County. Generally, the Ohio River Valley is a good source of sand and gravel suitable for concrete aggregate in several locations. Limestone, suitable for medium to poor grades of rip rap, may be found in the area.

Economic Minerals

Northern Kentucky does not appear to be endowed with an abundance of minerals which can be used as a valuable economic resource. Sand and gravel, for a variety of construction uses, are the principal exploited minerals. Oil and gas developments, particularly in central Ohio, indicate the possibility of hydrocarbon discovery in this general vicinity. To date, however, such reserves have not been discovered.

Climate

Climatological data concerning the Cincinnati Metropolitan Area was acquired from the U.S. Department of Commerce, Weather Bureau. Such information is of potential significance to individuals, business, and industrial interests, in considering location in this area. Information concerning the climate of Northern Kentucky is included in the earlier 1972 Area-Wide Comprehensive Plan. If further detail is desired, the Weather Bureau should be consulted.

Generally, temperatures of 90 degrees Fahrenheit (32.2 Celsius), or above, occur on the average of 19.5 days per year. The summers are moderately warm with daily maximum temperatures, during June, July, and August, in the mid 80's (29.4 C). Temperatures range from an average daily minimum of 20.0 degrees Fahrenheit (-6.7 C), in January, to an average daily maximum of 86.0 degrees Fahrenheit (30.0 C), in July. The Cincinnati Area experiences an average of 40.14 inches of precipitation annually. The winters in this region are relatively mild with average winter temperatures of 31.6 degrees Fahrenheit (-0.2 C).

Air Quality Characteristics

Increasing concern about air quality has made it a factor of major importance throughout the country. The nation's air pollution control program was initially carried out under the Clean Air Act of 1970. This Act was most recently amended in 1990. The Clean Air Act has required the study of air quality conditions in the Cincinnati Metropolitan Region, and study of the following six most common pollutants has been undertaken: sulfur oxides, particulates, carbon monoxide, ozone, hydrocarbons, and nitrogen oxides.

The initial State Implementation Plan for the Northern Kentucky Region was submitted by the State of Kentucky in 1986 to the United States Environmental Protection Agency (U.S. EPA), indicating that attainment of ozone standards could be met by December of 1987. Previously, the 1979 State Implementation Plan demonstrated

that the region could not attain ozone standards by December of 1982. As such, the Clean Air Act indicated that those areas categorized as non-attainment areas would have to pass legislation initiating an inspection and maintenance (I/M) program on auto emissions. Kenton and Campbell Counties did not take such action, resulting in sanctions by the U.S. EPA. These sanctions affected certain federal funds for highway and wastewater construction and prohibition of large hydrocarbon industries from locating or expanding in the area. Subsequently, in 1986, Kenton and Campbell Counties opted to implement an inspection and maintenance program, resulting in the removal of sanctions by U.S. EPA. That program which was administered by the Northern Kentucky Air Quality Board operated for several years until legislation was passed around 1990 by the Kentucky General Assembly that permitted the State of Kentucky to take over and operate the Automobile Inspection and Maintenance (I/M) program for Northern Kentucky.

The 1990 amendments to the Clean Air Act categorizes the Northern Kentucky area and the Cincinnati Metropolitan Region as a non-attainment area for ozone. This Act requires the new State Implementation Plan (SIP) be submitted indicating a reduction of 15 percent in hydrocarbons by late 1996.

The State of Kentucky submitted a 15 percent Reduction Plan (SIP) in 1993 which included the following reduction strategies: (1) enhanced inspection and maintenance program (I/M) and (2), use of reformulated gasoline. In 1994, the State of Kentucky requested redesignation to attainment status, based on three (3) years of good air quality in the region (1992 - 1994). Subsequently, Kentucky submitted a revised redesignation request in 1995. This request included withdrawal of Kentucky's 15 percent reduction plan. (This request indicated Kentucky was withdrawing its initial commitment to implement enhanced I/M program and use of reformulated gas.) However, in the summer of 1995, the region had ozone standard violations which prompted the U.S. Environmental Protection Agency to propose disapproval of Kentucky's redesignation request in April of 1996. Since, April 1996 the US Environmental Protection Agency has mandated implementation of a basic I/M program for Kentucky. It appears that this program will need to be implemented within approximately one (1) year, or sometime around late 1997. [\(See Chapter VIII, Transportation, regarding further discussion on air quality issues.\)](#)

Environmentally Sensitive Areas

A combination of many of the foregoing described characteristics may result in identification of areas which could be considered environmentally sensitive. For example, lands which are underlain by geologically fragile formations and covered by somewhat unstable soil conditions would dictate that such lands are environmentally sensitive and that caution should be applied when they are being considered for developmental purposes. Areas which are subject to periodic flooding would be considered environmentally sensitive. Land areas characterized by steep slope conditions, unstable soil characteristics, etc. would also easily be classified as environmentally sensitive. The terminology used is comparatively new -- the resulting problems are not.

Lands with such characteristics should be protected from such intensive development or very stringently regulated as such development is considered. The Area - Wide Comprehensive Plan recognizes such areas by a land use designation described in Chapter V as "Physically Restrictive Development Areas".

In 1991, the Hillside Trust, in cooperation with several other agencies (including the NKAPC), prepared and adopted a report entitled, "A Hillside Protection Strategy For Greater Cincinnati". This report documents the value and vulnerability of hillsides within the area, describes a computer-based technique for identifying sensitive hillside areas, and outlines a comprehensive set of guidelines for environmentally sensitive development in these hillside areas.

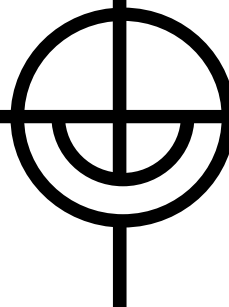
The Northern Kentucky Area Planning Commission is currently in the process of finalizing an updated model zoning ordinance to reflect necessary changes and to more effectively implement the recommendations of the area-wide comprehensive plan. This new update will take into consideration input from the Hillside Trust study to insure that guidelines contained therein are appropriately included in the recommended Model Zoning Ordinance update. The Model Subdivision Regulations, which are continually updated as needed by the KC&MP&ZC with assistance from the NKAPC, will also incorporate needed changes to reflect recommendations from the Hillside Trust study.

REFERENCE TO FURTHER DETAIL

The foregoing information is very general in nature. Further detail and mapping is provided in the previously prepared Area-Wide Comprehensive Plan and updated in 1981, 1986 and 1991. Further detail concerning geologic formations and soils is on file in the NKAPC offices and incorporated as part of the NKAPC GIS program. However, the type of detail necessary to determine construction feasibility, availability of economic minerals, problem soils and geologic conditions is only available with detailed on-site investigation.

Ongoing air quality information will be forthcoming from studies by the Ohio-Kentucky-Indiana Regional Council of Governments and the State of Kentucky. Water quality information is also available from that same source and information developed for preparation of this Plan Update, will be kept current, on file, and available for use in the offices of the Northern Kentucky Area Planning Commission.

CHAPTER IV
POPULATION, HOUSING, AND
ECONOMIC CONDITIONS



CHAPTER IV POPULATION, HOUSING, AND ECONOMIC CONDITIONS

GENERAL

The purpose of this chapter is to provide information about basic population, housing, and economic characteristics necessary for use in planning for the future. Information presented pertains to the entire Cincinnati Metropolitan Region, with specific emphasis on the Northern Kentucky Area.

POPULATION

The Comprehensive Plan Update, prepared in 1980, contains a discussion on historical population trends for the Cincinnati Metropolitan Region and the Northern Kentucky area between 1970 and 1980. Since there is no change to the historical data, that information is not repeated in this Update. Should any historical data be needed, the reader should refer to the 1980 Comprehensive Plan.

The 1990 U.S. Census of population and most recent Updates provided by the Kentucky State Data Center reveal that Kenton County has had very little total population change since the 1990 U.S. Census of population. In 1990, Kenton County had a population of 142,031. In 1995, the population in Kenton County was estimated to be 145,474, an increase of 3,443 persons or approximately two (2) percent. During this same period (1990-1995), Boone County registered an increase of approximately 21.7 percent, while Campbell County registered an increase of approximately 3.9 percent (see Table 4-1).

Population in the three-county Northern Kentucky area increased from slightly less than 283,500 in 1990, to an estimated population of just under 302,700 in 1995, representing an increase of just under 19,200 persons, or a 6.8 percent increase. Northern Kentucky's growth rate was greater than that of the state of Kentucky, as a whole, while Boone County's figure (21.7%) was one of the highest in the state.

Table 4-2 breaks down the population increases into the contributing factors of births, deaths, and migration. Population increases occurred in all three counties between 1980 and 1990. However, population increases in Kenton and Campbell Counties have been minimal due to periods of out migration.

- Between 1980 and 1990, Campbell and Kenton Counties experienced an out migration of 4,238 and 5,729, respectively. Between 1990 and 1995, Kenton County continued to experience out migration, although decreased from the out migration of the previous ten (10) years, while Campbell County experienced an in migration of 482. Net natural gain in both counties has continued to be greater than out migration, resulting in a rise in total population between 1980 and 1995.

TABLE 4-1
POPULATION TRENDS
1980-1995

AREA	1980 CENSUS	1990 CENSUS	1991 ESTIMATE	1993 ESTIMATE	1995 ESTIMATE	CHANGE 1980-1990		ESTIMATED CHANGE 1990-1995	
						NUMBER	PERCENT	NUMBER	PERCENT
KENTUCKY	3,660,777	3,685,296	3,714,966	3,793,962	3,860,219	24,519	0.67	174,923	4.7
OKI REGION *	1,660,278	1,744,124	1,767,476	1,802,574	1,824,794	83,846	5.1	80,670	4.6
BOONE COUNTY	45,842	57,859	60,720	65,349	70,097	11,747	25.6	12,238	21.2
CAMPBELL COUNTY	83,317	83,866	84,349	85,759	87,111	549	0.7	3,245	3.9
KENTON COUNTY	137,058	142,031	143,105	144,490	145,474	4,973	3.6	3,443	2.4
TRI-COUNTY TOTAL	266,217	283,486	288,174	295,598	302,682	17,269	6.5	19,196	6.8

* Ohio - Kentucky - Indiana (OKI) includes the following counties: Kentucky - Kenton, Boone, and Campbell; Ohio - Hamilton, Clermont, Butler and Warren; Indiana - Dearborn.

SOURCES: (1) Kentucky State Data Center, Population Research, University of Louisville, "How Many Kentuckians, Population Forecasts 1995-2020", 1995 Edition.

(2) U.S. Bureau of the Census, Decennial Censuses and annual estimates.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4-2
POPULATION CHANGE - MIGRATIONAL TRENDS
1980 - 1995

AREA	1980 ⁽¹⁾ POPULATION	1990 ⁽¹⁾ POPULATION	NET GAIN/LOSS 1980-1990	BIRTHS ⁽²⁾ 1980-1990	DEATHS ⁽²⁾ 1980-1990	NATURAL NET GAIN	NET MIGRATION
CAMPBELL COUNTY	83,317	83,866	549	13,492	8,705	4,787	-4,238
KENTON COUNTY	137,058	142,031	4,973	23,984	13,282	10,702	-5,729
BOONE COUNTY	45,842	57,589	11,747	8,813	3,264	5,549	+6,198
THREE-COUNTY TOTAL	266,217	283,486	17,269	46,289	25,251	21,038	-3,769
AREA	1990 ⁽¹⁾ POPULATION	1995 ⁽¹⁾ CENSUS ESTIMATE	NET GAIN/LOSS 1990-1995	BIRTHS ⁽²⁾ 1990-95	DEATHS ⁽²⁾ 1990-1995	NATURAL NET GAIN	NET MIGRATION
CAMPBELL COUNTY	83,866	87,111	3,245	7,626	4,863	2,763	+482
KENTON COUNTY	142,031	145,474	3,443	13,695	7,437	6,258	-2,815
BOONE COUNTY	57,589	70,097	12,508	6,097	2,393	3,704	+8,804
THREE-COUNTY TOTAL	283,486	302,682	19,196	27,418	14,693	12,725	+6,471

SOURCE: (1) Kentucky State Data Center, Population Research, University of Louisville, 1995 Edition.

(2) Kentucky Cabinet for Human Resources, Department of Vital Statistics.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

- Between 1990 and 1995, Campbell County experienced an in migration of 482 and a natural net gain (births over deaths) of 2,763, resulting in a net population gain of 3,245 persons in a five year period, almost six times the increase over the past ten years. Kenton County experienced an out migration of 2,815 and a 258 natural net gain between 1990 and 1995, resulting in a total net gain of 3,443 persons, more than two-thirds of the net gain in population of the previous ten years.
- Unlike Kenton and Campbell Counties, Boone County experienced an in migration between 1980 and 1990, and continued to do so between 1990 and 1995. Although in migration had been decreasing in the past, it rose again between 1990 and 1995. Between 1980 and 1990, Boone County experienced an in migration of 6,198. The five year period between 1990 and 1995 resulted in an in migration of 8,804, a greater in migration than was experienced during the previous ten years. Coupled with a natural net gain of 3,704, Boone County experienced a total net gain of 12,508 persons between 1990 and 1995.

Table 4-3 shows the birth and death rates from 1990 through 1995 for the three Northern Kentucky counties. This table provides some background for the trends shown in Table 4 - 2. In all three Northern Kentucky counties, total births exceeded total deaths. Kenton County experienced the largest natural net gain (excess of births over deaths) from 1980 to 1990 and from 1990 to 1995, as shown in Table 4 - 2. Table 4 - 3 shows that during the five year period from 1990 to 1995, Kenton County live births almost doubled the live births of Campbell County. Birth rates in all three counties have, however, declined since the last Plan Update and continued to decline through 1995. During the same time period, the percentage of babies born to non-married mothers increased in Kenton and Boone Counties, and decreased only slightly in Campbell County. Between 1990 and 1993, Boone County had the lowest death rate of the three counties, replacing Kenton County whose death rate has risen since the last Plan Update.

Table 4-4 presents the 1990 and 1994 population of Kenton County cities. A closer evaluation of population trends since 1990, within Kenton County, indicates the following (see Table 4-4):

- While the county as a whole gained a small amount of population between 1990 and 1994 (2,819 persons), a number of cities in the county have shown substantial increases in population. The largest percentage growth occurred in Taylor Mill (1,780 persons - 32.18 percent), Crescent Springs (782 persons - 28.43 percent), and Independence (1349 persons - 12.92 percent).
- Covington continued to show a decline in population (1,816 persons - 4.16 percent) -- a continuation of the trend between 1970 and 1990.

TABLE 4 - 3
POPULATION CHANGE - BIRTHS AND DEATHS
1990 - 1995

AREA	YEAR	TOTAL BIRTHS ⁽¹⁾		BIRTHS TO NON - MARRIED MOTHERS			TOTAL DEATHS	
		NUMBER	RATE/1000 ⁽²⁾	NUMBER	RATE/1000 ⁽²⁾	PERCENT	NUMBER	RATE/1000 ⁽²⁾
CAMPBELL COUNTY	1990	1274	15.5	335	4.1	26.3	800	9.7
	1991	1284	15.3	307	3.7	23.9	758	9.0
	1992	1329	15.8	359	4.3	27.0	779	9.3
	1993	1248	14.7	384	4.5	30.8	850	10.0
	1994	1255	14.5	383	4.4	30.5	827	9.6
	1995	1236	14.2	367	4.2	26.7	849	9.7
KENTON COUNTY	1990	2342	16.5	554	3.9	23.7	1259	8.9
	1991	2332	16.4	599	4.2	25.7	1193	8.4
	1992	2291	16.0	657	4.6	28.7	1233	8.6
	1993	2207	15.4	618	4.3	28.0	1224	8.5
	1994	2326	16.1	660	4.6	28.4	1243	8.6
	1995	2197	15.1	640	4.4	29.1	1285	8.8
BOONE COUNTY	1990	995	17.0	166	2.9	17.4	372	6.6
	1991	887	15.4	145	2.5	16.3	367	6.4
	1992	1033	17.0	191	3.2	18.5	402	6.6
	1993	1032	16.4	193	3.1	18.7	415	6.6
	1994	1062	15.7	216	3.2	20.3	435	6.4
	1995	1088	15.5	231	3.3	21.2	402	5.7

(1) Live births.

(2) Per 1000 population.

SOURCE: Kentucky Cabinet for Human Resources, Department of Vital Statistics.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4-4
COMPARISON OF POPULATION - KENTON COUNTY CITIES
1990 AND 1994

AREA	POPULATION		1990 - 1994	
	1990	1994	NUMBER	% CHANGE
KENTON COUNTY	142,031	144,850	2,819	1.98
UNINCORP. AREA	11,094	11,489	395	3.56
BROMLEY	1,137	1,156	19	1.70
COVINGTON	43,646	41,830	-1816	-4.16
CRESCENT PARK	364	355	-9	-2.44
CRESCENT SPRINGS	2,749	3,531	782	28.43
CRESTVIEW HILLS	2,546	2,466	-80	-3.15
EDGEWOOD	8,143	8,629	486	5.97
ELSMERE	6,847	6,986	139	2.03
ERLANGER	15,979	15,996	17	0.11
FAIRVIEW	119	81	-38	-32.26
FORT MITCHELL	7,438	7,041	-397	-5.33
FORT WRIGHT	6,404	6,666	262	4.10
INDEPENDENCE	10,444	11,793	1349	12.92
KENTON VALE	154	153	-1	-0.41
LAKESIDE PARK	3,131	3,176	45	1.43
LATONIA LAKES	410	406	-4	-0.93
LUDLOW	4,736	4,615	-121	-2.55
PARK HILLS	3,321	3,190	-131	-3.96
RYLAND HEIGHTS	279	223	-56	-20.15
TAYLOR MILL	5,530	7,310	1780	32.18
VILLA HILLS	7,370	7,558	188	2.55
VISALIA	190	199	9	4.65
TOTAL CITIES	130,937	133,361	2,424	1.90
TOTAL UNINCORP.	11,094	11,489	395	3.56

SOURCE: Kentucky State Data Center, Population Research, University of Louisville, "How Many Kentuckians, Population Forecasts 1995-2020", 1995 Edition.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

- Cities other than Covington that continued a trend of declining population were: Fairview (38 persons - 32.26 percent), Park Hills (131 persons - 3.96 percent), and Ludlow (121 persons - 2.55 percent).
- Cities that have shown a decrease in population since the last plan update are: Ryland Heights (56 persons - 20.15 percent), Fort Mitchell (397 persons - 5.33 percent), Crestview Hills (80 persons - 3.15 percent), Crescent Park (9 persons - 2.44 percent), Latonia Lakes (4 persons - 0.93 percent), and Kenton Vale (1 person - 0.41 percent).

Current population projections for the three-county Northern Kentucky area, as well as the OKI region, are slightly higher than those included in the previous Plan Update. By the year 2000, Kenton County is projected to reach a population of approximately 150,200 persons. This represents an increase of approximately 8,200 persons (5.8 percent) over the 1990 population. Kenton County is further projected to increase to approximately 157,200 persons by the year 2010 and to approximately 162,300 by the year 2020, reflecting an increase of approximately 12,000 persons (8.0 percent) between the year 2000 and 2020 (see Table 4-5). Most of this growth is expected to occur toward the Central Kenton County area (southern Erlanger, Taylor Mill and Independence areas) where vacant land is available and urban services are being provided.

Projections indicate that the population of Campbell County will increase by approximately 26 percent by the year 2000, while the population of Boone County will increase to approximately 79,200 persons for the same period and to approximately 109,400 persons by the year 2020, representing an overall increase of approximately 90 percent from 1990. By the year 2000, the three-county Northern Kentucky area is projected to contain nearly 321,000 persons and is anticipated to increase to almost 377,000 persons by the year 2020, representing an approximate increase of 33 percent from 1990.

A comparison of population projections by age group reveals that Kenton County will contain an older population by the years 2000, 2010, and 2020. In 1990, the age groups of 0 - 19 comprised approximately 30 percent of the total population. This age bracket represents primarily the non-working, school age, population. By the year 2010, these age groups are projected to decrease to 26 percent of the total population, and by the year 2020, they will have decreased to 25 percent of the total population of Kenton County. The age groups of 20 - 64 represent the stable working population. In 1990, this age group represented approximately 58 percent of the total population. By the year 2010, this population group is anticipated to comprise 61 percent of the total population of Kenton County, and by the year 2020 will have fallen back to 58 percent of the population. The last age group, 65 and older, represents the elderly population. In 1990 this age group represented approximately 11 percent of the population of Kenton County. By the year 2010, however, this age group is anticipated to increase to approximately 13 percent of the total population, and by the year 2020 will comprise just under 17 percent of the total population of Kenton County (refer to Table 4-6).

TABLE 4-5
POPULATION PROJECTIONS
1995-2020

AREA	POPULATION		PROJECTIONS		NUMBER CHANGE 1990-2000	% CHANGE 1990-2000	PROJECTIONS		NUMBER CHANGE 2000-2020	% CHANGE 2000-2020
	1980	1990	1995	2000			2010	2020		
OKI REGION	1,660,278	1,744,124	1,805,868	1,866,823	122,699	7.0	1,973,795	N/A	N/A	N/A
BOONE COUNTY	45,842	57,589	69,548	79,172	21,583	37.5	94,672	109,373	30,201	38.1
CAMPBELL CO.	83,317	83,866	87,190	91,397	7,531	9.0	98,380	105,238	13,841	15.1
KENTON COUNTY	137,058	142,031	145,830	150,254	8,223	5.8	157,243	162,317	12,063	8.0
TRI-COUNTY TOTAL	266,217	283,486	302,568	320,823	37,337	13.2	350,295	376,973	56,150	17.5

N/A - Not Available

SOURCE: (1) Kentucky State Data Center, Population Research, University of Louisville, "How Many Kentuckians, Population Forecasts 1995-2020" 1995 Edition.
(The high growth series was used)

(2) Ohio Data User's Center, Ohio Department of Development.

(3) Indiana Business Research Center, Indiana University School of Business, 1993.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4-6
POPULATION PROJECTIONS BY AGE GROUP
KENTON COUNTY
1990, 2000, 2010 AND 2020

AGE GROUP	1990 CENSUS		2000 PROJECTION		% CHANGE 1990-2000	2010 PROJECTION		% CHANGE 1990-2010	2020 PROJECTION		% CHANGE 1990-2020
	POP.	% OF TOTAL	POP.	% OF TOTAL		POP.	% OF TOTAL		POP.	% OF TOTAL	
0 - 4	11,604	8.2	10,340	6.9	-10.9	10,347	6.6	-10.8	10,284	6.3	-11.4
5 - 19	31,600	22.2	33,148	22.1	4.9	31,241	19.9	1.1	30,700	18.9	-2.8
20 - 34	36,352	25.6	30,156	20.1	-17.0	32,531	20.7	10.5	32,001	19.7	-12.0
35 - 49	28,666	20.2	36,150	24.1	26.1	31,249	19.9	9.0	30,120	18.6	5.1
50 - 64	17,568	12.4	21,952	14.6	25.0	31,761	20.2	80.8	32,324	19.9	84.0
65+	16,241	11.4	18,509	12.3	14.0	20,116	12.8	62.1	26,889	16.6	65.6
TOTAL	142,031	100.0	150,254	100.0	5.8	157,243	100.0	10.7	162,317	100.0	14.3

SOURCE: Kentucky State Data Center, University of Louisville: "How many Kentuckians, Population Forecasts, 1995-2020", 1995 Edition. (The high growth series was used)
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

The population pyramids, [Figure 4-1](#), show a distribution of Kenton County's population by age and gender. The three graphs show the progression of the largest generation, the baby boomer generation (those born between 1946 and 1964), as they age. In 1980, the distribution still resembled the typical population pyramid, but by 2020, as the baby boomers retire and are replaced by a smaller generation, the distribution of population is projected to resemble more of a cylinder than a pyramid.

These projection figures reveal that the percentage of the younger age groups, particularly those in the non-working, school age population, will continue to decline to the years 2000, 2010, and 2020, thus indicating that there will be fewer people entering the work force to replace those that have left during the 30 year span between 1990 and 2020. These figures also reveal an increase of people 65 and older. In 1990, about one (1) in every nine (9) Kenton County residents was over 65. By the year 2020, it is projected that one (1) in every six (6) Kenton County residents will be over the age of 65. Furthermore, a Census Bureau report recently revealed that the fastest growing segment of the population is people 85 and older. As this trend continues, and the largest percent of the population approaches retirement age, there is a need to begin developing resources to accommodate an increasingly aged population.

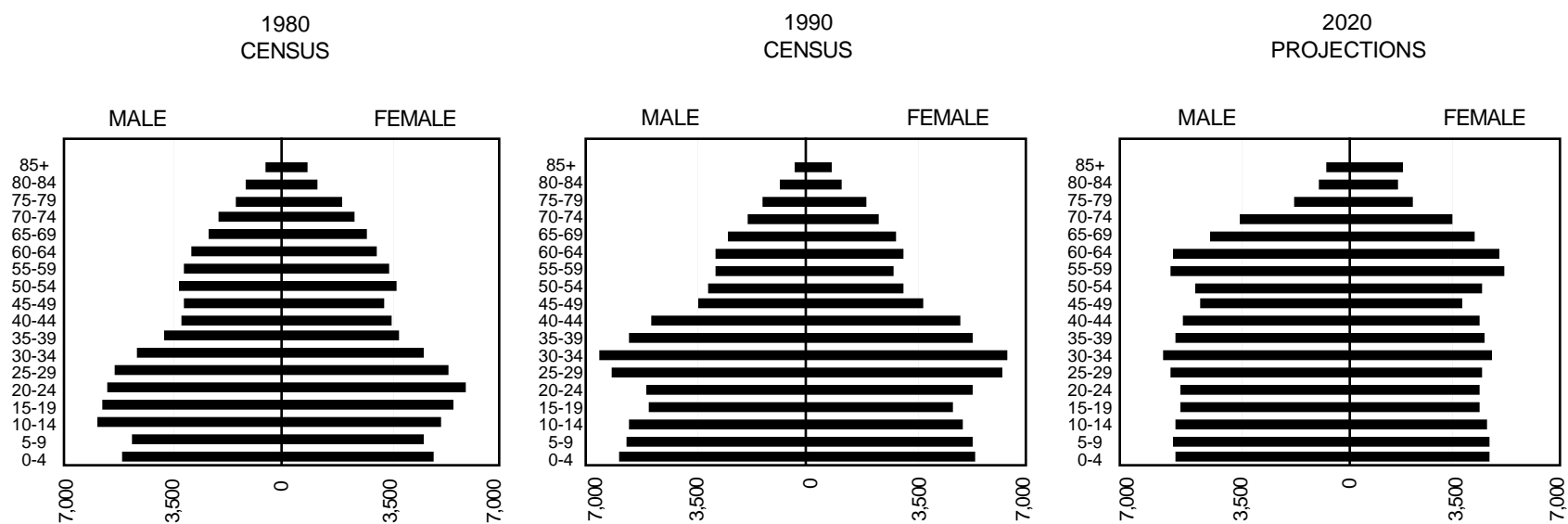
HOUSING

In 1980, Kenton County contained 49,920 single and multi-family housing units of which approximately 66 percent were single-family units (33,013). The three-county region of Northern Kentucky contained just over 94,100 single and multi-family housing units of which approximately 29,300 were multi-family units and almost 65,000 were single-family units. Kenton County contained a little over half of all housing units in the three-county area ([see Table 4-7](#)).

During the period between 1980 and 1990, a total of approximately 6,100 housing units were added to the housing supply within Kenton County. Since 1990, over 3300 housing units were added, with the majority being classified as single family attached or detached. In 1990, single-family housing units represented 65.4 percent of the total housing supply. This is a slight decrease from 1980 when single-family housing units comprised 66.1 percent of the supply. In 1990 Kenton County continued to supply approximately half of the housing units in Northern Kentucky.

Growth in the supply of single-family housing units has declined since 1980 in all three Northern Kentucky counties ([See Table 4-7](#)). During the period from 1980 to 1990, multi-family units have increased in all three counties at a higher rate than from 1970 to 1980. Although single-family housing units comprise the majority of new housing units in all three Northern Kentucky counties, multi-family housing units and other types of housing units are showing increases. In Boone County, where the increase in percent of single-family housing units was the largest at 28.3 percent, multi-family units increased at a greater rate (41.6 percent). In Campbell County, the growth rate for single and multi-family housing units was nearly equal at 7.7 and 5.7 percent, respectively.

FIGURE 4 - 1
KENTON COUNTY POPULATION



SOURCE: Kentucky State Data Center, Population Research, University of Louisville, How Many Kentuckians, 1995 Edition, Kenton County
PREPARED BY: Northern Kentucky Area Planning Commission, 1996

TABLE 4-7
NEW HOUSING BY TYPE OF UNIT
1980-1990

AREA	1980 CENSUS				1990 CENSUS				PERCENT CHANGE 1980-1990	
	SINGLE FAMILY	MULTI FAMILY	TOTAL UNITS	% SINGLE FAMILY	SINGLE FAMILY	MULTI FAMILY	TOTAL UNITS*	% SINGLE FAMILY	SINGLE	MULTI
CAMPBELL COUNTY	20,327	9,095	29,422	69.1	21,895	9,612	32,910	66.5	7.7	5.7
KENTON COUNTY	33,013	16,907	49,920	66.1	36,701	16,961	56,087	65.4	11.2	0.32
BOONE COUNTY	11,445	3,347	14,792	77.4	14,683	4,741	21,476	68.4	28.3	41.6
TOTAL	64,785	29,349	94,134	68.8	73,279	31,314	110,472	66.3	13.1	6.7

* Includes Mobile Homes and Other Types.

SOURCE: (1) 1980 Census of Population and Housing, U.S. Department of Commerce, Bureau of the Census, August, 1983.

(2) 1990 Census of Population and Housing, Summary Tape File 1.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 4-8 provides information on housing occupancy by type of unit for cities in Kenton County. Information is provided for owner and renter units as well as vacancies for these units. The incorporated cities within the county accounted for 52,020 of the 56,087 housing units in the county. The remaining 4,067 housing units are located in unincorporated Kenton County.

HOUSING FOR SENIOR CITIZENS

Population projections for the Northern Kentucky area, as well as for the nation overall, indicate an increase in the proportion of people over 65 years of age. Many people in this age group live on low or fixed incomes and need special services due to decreased mobility.

According to Senior Services of Northern Kentucky, special services and programs for the elderly such as home repair, home health care, and transportation, are in short supply compared to what is needed in most of Northern Kentucky. Boone County is the exception because it currently has a lower proportion of older people. The “Northern Kentucky Older Adult Resource Guide”, published by Senior Impact Publications on behalf of Senior Services of Northern Kentucky, contains a detailed listing of services for seniors.

Table 4-9 shows available housing units specifically for senior citizens. As of early 1996, there were few vacancies in these 1,395 units, and most had long waiting lists. Some are apartment units only, which are set aside for the elderly. Others are Independent Living units, in which services such as laundry, housekeeping, and meal delivery are provided. Finally, some housing provides Assisted Living, which includes bathing and dressing, as well as laundry, personal care, and meals.

SUBSIDIZED RENTAL HOUSING IN KENTON COUNTY

In Kenton County, the major subsidized rental housing programs are the Public Housing program (U.S. Housing Act of 1934), the Section 8 Project-based program, the Section 8 Certificate program (U.S. Housing Act of 1968), and the Low Income Housing Tax Credit (LIHTC) program (established by Congress in the 1981 tax code). There are also a few other programs, such as Sections 202 (U.S. Housing Act of 1959), 221 (d) (3) (U.S. Housing Act of 1961), and 236 (U.S. Housing Act of 1968). Except for housing in the Public Housing program, most subsidized rental housing is owned by private individuals and limited partnerships. This is contrary to the popular misconception that all subsidized housing is owned and operated by public agencies.

All programs are based on household income. For most programs, the base income is eighty percent or less of an area's median income, adjusted for family size. For example, in 1996 the median income for a family of four in Kenton County is \$33,600. Therefore, a family of four with an income of \$26,880 or less would be eligible for subsidized rental housing.

TABLE 4-8
HOUSING OCCUPANCY BY TYPE OF UNIT BY CITY
1990

AREA	SINGLE - FAMILY			MULTI - FAMILY			MOBILE HOMES	TOTAL
	OWNER	RENTER	VACANT	OWNER	RENTER	VACANT		
BROMLEY	258	65	14	6	54	4	39	440
COVINGTON	7,691	1,735	613	878	6,620	1,144	436	19,117
CRESCENT PARK	113	14	2	0	0	0	2	131
CRESCENT SPRINGS	316	99	15	3	298	28	139	898
CRESTVIEW HILLS	825	34	22	23	7	1	33	945
EDGEWOOD	2,286	82	49	24	59	6	4	2,510
ELSMERE	1,419	241	44	23	193	11	463	2,394
ERLANGER	3,708	362	68	75	1,506	113	249	6,081
FAIRVIEW	34	3	3	0	0	0	5	45
FT. MITCHELL	1,482	102	50	55	1,433	150	82	3,354
FT. WRIGHT	1,785	96	37	66	557	49	47	2,637
INDEPENDENCE	2,443	204	62	69	610	157	141	3,686
KENTON VALE	56	3	2	0	1	0	0	62
LAKESIDE PARK	765	37	29	15	424	31	10	1,311
LATONIA LAKES	106	21	18	0	0	0	7	152
LUDLOW	1,082	210	51	72	373	58	55	1,901
PARK HILLS	764	49	30	47	585	52	2	1,529
RYLAND HEIGHTS	64	7	1	2	5	0	8	87
TAYLOR MILL	1,520	98	40	15	335	29	19	2,056
VILLA HILLS	2,063	75	46	38	348	23	26	2,619
VISALIA	47	7	0	0	0	0	11	65
TOTAL CITIES	28,827	3,544	1,196	1,411	13,408	1,856	1,778	52,020
TOTAL KENTON CO.	31,488	3,847	1,366	1,434	13,656	1,871	2,425	56,087

SOURCE: 1990 Census of Population and Housing, Summary Tape File 1.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4 - 9
ELDERLY HOUSING UNITS IN KENTON COUNTY
1995

NAME AND LOCATION	TOTAL UNITS	ASSISTED ⁽¹⁾ LIVING UNITS	RENT SUBSIDY	COMMENTS
Austinburg Apartments Covington, KY	40	0	Section 8	
Baptist Village Erlanger, KY	48	19	None	Independent living ⁽²⁾ services provided
Bismark Covington, KY	33	0	Section 8	
Bromley Group Bromley, KY	17	0	None	Elderly and disabled
CEF Apartments Fort Wright, KY	12	0	Section 8	
The Colony Covington, KY	136	0	Section 8	
German Town Covington, KY	4	0	Section 8	
Golden Towers Covington, KY	199	0	Section 8	Covington Housing Authority units for elderly and disabled
Hathaway Court Covington, KY	159	0	Section 8	
Highland Crossing Covington, KY	139	40	None	Independent living services provided
Highpoint Ludlow, KY	43	0	Section 8	
La Salette Gardens Covington, KY	76	0	Section 8	90% elderly; 10% disabled, any age
Madonna Manor Villa Hills, KY	52	7	None	Independent living services provided
Panorama East & West Covington, KY	290	0	None	
Saint Aloysius Covington, KY	40	0	Section 8	Elderly and disabled
St. Charles Care Center Covington, KY	107	60	None	Independent living services provided

(1) Assisted Living is a descriptive term in Kentucky, not a licensed activity, and often includes bathing and dressing as well as laundry, housekeeping and meal delivery.

(2) Independent Living Services may include laundry, housekeeping and meal delivery.

SOURCE: Northern Kentucky Area Planning Commission survey of existing housing.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Public Housing is typically owned and operated by a Public Housing Authority (“PHA”). Residents of Public Housing units pay only 30 percent of their income for rent, and the remainder of the rent is paid to the Housing Authority by the US Department of Housing and Urban Development (HUD). The purpose of the Public Housing Program is to provide housing for families, displaced individuals, the elderly, and the handicapped at the very lowest income levels. In Kenton County, Public Housing is owned and operated by the Housing Authority of Covington. In 1996, there were 963 Public Housing units in Kenton County, with approximately 200 reserved for the elderly, and all 963 units were located in the City of Covington ([See Table 4-10](#)). This number has been reduced from 998 in 1980.

The Section 8 program also requires the tenant to pay only 30 percent of their income for rent, but in this case, the housing is privately owned and the balance of the rent is paid by HUD to the private owner. There are two separate Section 8 programs: the Project-based program and the Certificate program. The Section 8 Project-based program attaches a Section 8 subsidy to a particular housing unit, so that as tenants come and go, that housing unit always has a rent subsidy. In Kenton County, there are 908 housing units which have Section 8 Project-based rental subsidies, and 728 of these units are in Covington. There are, in addition, 1,080 households (families and individuals) who have Section 8 Certificates. Tenants who have Certificates must find a housing unit in the private market anywhere in the county that will accept their certificate.

Some housing units are subsidized through the Federal Housing Administration (FHA) using the Section 202, Section 221(d)(3), and Section 236 programs, which provide low interest loans and federally-backed mortgage insurance to assist developers in building, renovating, and/or managing property. In exchange for receiving subsidies from FHA, developers are required to pass savings on to tenants in the form of lower rents. The rent must be low enough to be affordable to households making a given percent (usually 80 percent) of an area’s median income. Although most of the units in these programs do have additional Section 8 Project-based rent subsidies, (908 units), there are 325 that do not. This means that tenants in these 325 units pay full rent, (instead of paying only 30 percent of their income, as in the Section 8 program), although the rent is less than market rate rent.

The newest subsidized housing program, the LIHTC program, was established by Congress in the 1981 tax code, and today is the main vehicle for affordable housing production for low income families and individuals. Between 1986 and 1996, approximately 445 LIHTC units have been developed in Kenton County. This program provides to an investor in a low income housing development project a dollar for dollar tax credit on the money invested. Because the LIHTC housing usually does not have Section 8 Project-based rental subsidies, the savings of this subsidy to the investor is to be passed on to the tenants in the form of lower rents, as is done in the 325 units in the FHA programs previously mentioned.

TABLE 4 - 10
1995 INVENTORY OF SUBSIDIZED RENTAL HOUSING UNITS IN KENTON COUNTY

AREA	PUBLIC HOUSING UNITS	SECTION 8 CERTIFICATES	UNITS WITH SECTION 8 RENTAL SUBSIDIES	FHA UNITS ⁽¹⁾ NO RENTAL SUBSIDIES	LIHTC ⁽²⁾ UNITS	TOTAL
Covington	963	--	728	325	--	--
County Balance	0	--	180	0	--	--
Total	963	1,080 ⁽³⁾	908	325	445 ⁽³⁾	3,721

(1) Federal Housing Administration.

(2) Low Income Housing Tax Credit.

(3) Information on exact location not available.

SOURCE: Northern Kentucky Area Planning Commission survey of subsidized rental housing units.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

The total number of public housing units (963), Section 8 Project-based units (908), and Section 8 Certificates (1,080) in Kenton County is 2,951, which is only approximately five percent of the total number of housing units in Kenton County (56,087 units, according to the 1990 Census). If the additional 445 Low Income Housing Tax Credit units, and 325 units of Sections 202 and 236 without rent subsidies are added, the total comes to 3,721 rental units with some type of subsidy for low and moderate income families and individuals, or approximately six (6) percent of the total number of housing units in Kenton County.

Currently, it appears that the intent of Congress is to rely primarily on the LIHTC program to create new units of affordable housing for moderate income families and individuals. The Section 8 Project-based subsidies, along with the rest of the older programs (e.g. Sections 236 and 221 (d)(3)) which were used to create additional units of affordable housing for those at lower income levels through new construction or rehabilitation, will be phased out. But the rents on the LIHTC units will not be low enough for those at the lowest income levels. They will have to rely on Public Housing, or obtain a Section 8 Certificate and try to find a housing unit on the private market. The Public Housing program will be maintained, but few new units will be added. The Section 202 program for the elderly and handicapped will probably continue to provide new units for the elderly and handicapped.

HOUSEHOLD CHARACTERISTICS

Tables [4-11\(A\)](#) and [4-11\(B\)](#) present information on household and family characteristics. [Table 4-11\(A\)](#) compares Kenton County with the state of Kentucky and [Table 4-11\(B\)](#) compares Kenton County with the city of Covington. Comparisons of this data from previous census periods are not available for all other cities in the county as this information was only collected for larger cities. The 1990 Census did collect household and family characteristics for all cities and is available on Summary Tape File 1 data at the offices of the Northern Kentucky Area Planning Commission.

During the ten year period between 1970 and 1980, the number of total households in Kenton County (total of all persons who occupy a housing unit) grew by 7,833 (a 19 percent increase). Between 1980 and 1990, growth in households declined to 4,531 (a 9.4 percent decrease). Family households (persons living in the same household who are related by birth, marriage or adoption) also experienced a declining growth rate in the 1980 to 1990 period. These declining growth rates follow through to decreases in persons per household (2.66 in 1990 from 2.81 in 1980), and in persons per family (3.23 in 1990 from 3.4 in 1980). Decreasing growth rates in total households and family households equate to an increase in non-family households (persons unrelated by marriage, birth or adoption). During the period from 1970 to 1980, non-family households in Kenton County increased by 57 percent. Between 1980 and 1990, the growth rate for non-family households was 23.5 percent for a total of 15,266 non-family households.

TABLE 4-11 (A)
PERSONAL HOUSEHOLDS AND FAMILY CHARACTERISTICS
1970-1990

	KENTUCKY				KENTON COUNTY			
	1970	1980	1990	1980-1990 % CHANGE	1970	1980	1990	1980-1990 % CHANGE
TOTAL PERSONS	3,220,711	3,660,777	3,685,296	5.0	129,440	137,058	142,031	3.6
IN HOUSEHOLDS	3,118,607	3,557,409	3,584,120	0.1	128,254	135,451	140,148	3.6
IN GROUP QUARTERS	100,099	103,368	101,176	-2.1	1,186	1,607	1,883	17.2
TOTAL HOUSEHOLDS	983,665	1,263,102	1,379,782	9.2	40,326	48,159	52,690	9.4
FAMILY HOUSEHOLDS	820,880	986,495	1,015,998	3.0	32,467	35,802	37,424	4.5
MARRIED COUPLE FAMILIES	720,223	833,248	816,732	-2.0	27,758	29,384	29,327	-0.2
WITH CHILDREN UNDER 18	394,611	433,448	409,572	-5.5	16,070	15,891	15,696	-1.2
WITH CHILDREN UNDER 6	99,881	208,143	N/A	N/A	8,481	7,637	N/A	N/A
FEMALE HEADED FAMILIES	87,762	125,875	159,660	26.8	3,797	5,319	6,403	20.4
WITH CHILDREN UNDER 18	44,269	70,915	103,666	46.2	1,790	2,967	4,111	38.6
WITH CHILDREN UNDER 6	9,604	25,282	N/A	N/A	637	1,009	N/A	N/A
NONFAMILY HOUSEHOLDS	162,785	276,607	363,784	31.5	7,859	12,357	15,266	23.5
PERSONS PER HOUSEHOLD	3.17	2.82	2.60	-7.8	3.18	2.81	2.66	-5.3
PERSONS PER FAMILY	3.56	3.27	3.08	-5.8	N/A	3.4	3.23	-5.0

N/A - Not Available.

SOURCE: Bureau of the Census, U.S. Department of Commerce, 1970 Census of Population, Volume 1, Chapter B, General Population Characteristics, Part 19, Kentucky, Washington D.C., April, 1973, Table 22, p.57 and Table 36, p. 150; and 1980 Census of Population, Volume 1, Chapter 6, General Social and Economic Characteristics, Part 19, Kentucky, PC 80-1-219, Washington D.C. July, 1983, Table 64, p. 57 and Table 173, p. 378; and 1990 Census of Population, Selected Population and Housing Characteristics, Table 1.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4-11 (B)
PERSONAL HOUSEHOLDS AND FAMILY CHARACTERISTICS
1970-1990

	COVINGTON				KENTON COUNTY			
	1970	1980	1990	1980-1990 % CHANGE	1970	1980	1990	1980-1990 % CHANGE
TOTAL PERSONS	52,535	49,563	43,264	-12.7	129,440	137,058	142,031	3.6
IN HOUSEHOLDS	51,927	48,527	42,642	-13.2	128,254	135,451	140,148	3.5
IN GROUP QUARTERS	608	991	1,098	10.8	1,186	1,607	1,883	17.2
TOTAL HOUSEHOLDS	18,134	18,771	17,319	-7.7	40,326	48,159	52,690	9.4
FAMILY HOUSEHOLDS	13,046	12,168	10,531	-13.4	32,467	35,802	37,424	4.5
MARRIED COUPLE FAMILIES	10,246	8,846	6,952	-21.4	27,758	29,384	29,327	-0.2
WITH CHILDREN UNDER 18	5,427	4,484	3,628	-19.1	16,070	15,891	15,696	-1.2
WITH CHILDREN UNDER 6	2,963	2,338	N/A	N/A	8,481	7,637	N/A	N/A
FEMALE HEADED FAMILIES	2,305	2,823	2,896	2.6	3,797	5,319	6,403	20.4
WITH CHILDREN UNDER 18	1,136	1,678	1,964	17.0	1,790	2,967	4,111	38.6
WITH CHILDREN UNDER 6	457	755	N/A	N/A	637	1,009	N/A	N/A
NON FAMILY HOUSEHOLDS	5,088	6,585	6,788	3.1	7,859	12,357	15,266	23.5
PERSONS PER HOUSEHOLD	2.86	2.59	2.46	-5.0	3.18	2.81	2.66	-5.3
PERSONS PER FAMILY	N/A	3.3	3.19	-3.3	N/A	3.4	3.23	-5.0

N/A - Not Available.

SOURCE: Bureau of the Census, U.S. Department of Commerce, 1970 Census of Population, Volume 1, Chapter B, General Population Characteristics, Part 19, Kentucky, Washington D.C., April, 1973, Table 22, p. 57 and Table 36, p. 150; and 1980 Census of Population, Volume 1, Chapter 6, General Social and Economic Characteristics, Part 19, Kentucky, PC 80-1-219, Washington D.C. July, 1983, Table 173, p. 378; and 1990 Census of Population, Selected Population and Housing Characteristics, Table 1.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Tables [4-11\(A\)](#) and [4-11\(B\)](#) also provide data by family type for married couple families and female-headed families. Married couple families decreased in Kenton County by 0.2 percent between 1980 and 1990. This follows an increase during the previous census period from 1970 to 1980. Female-headed families have increased during both of the last two census periods. Between 1980 and 1990, families in this category increased by 20.4 percent.

[Table 4-11\(B\)](#), which compares the City of Covington with Kenton County, indicates generally that the county is showing more positive growth trends. This is attributable in large part to the fact that, during the last two census periods, the county has gained population, and the City of Covington has lost population.

EMPLOYMENT / UNEMPLOYMENT CHARACTERISTICS

Between 1990 and 1995, the total number of persons in the total civilian labor force in Northern Kentucky increased from 146,188 to 157,694 ([see Table 4-12](#)). Between 1990 and 1995, employed persons within the civilian labor force residing in Northern Kentucky, regardless of where they worked, increased from 140,907 persons to 150,916 persons ([see Table 4-13](#)). This represented an increase in employed persons in the labor force of 10,009 or a 7.1 percent increase. Boone County registered the largest percentage increase of employed persons within the labor force with an increase of 5,277 persons or a 17.7 percent increase. In Kenton County, the employed labor force increased by 2,487 persons, increasing from 71,041 persons to 73,528 persons, for a 3.5 percent increase. The difference between the civilian labor force and employed persons within the labor force gives the unemployment rate for Northern Kentucky. In 1990, the number of unemployed persons, those able to work and actively seeking employment, was 5,281, or 3.6 percent of the labor force. In 1995, that number rose to 6,778 or 4.5 percent ([see Table 4-12](#)).

In 1990, unemployment figures for the Northern Kentucky area (3.6 percent) were lower than they had been since the 1960's. Northern Kentucky's unemployment then rose between 1990 and 1992. Peaking at 5.6 percent in 1992, the unemployment rate dropped again. Therefore, although unemployment in Northern Kentucky was higher in 1995 (4.5 percent) than in 1990 (3.6 percent), unemployment has actually been falling since 1992. In 1995, Kenton County and Boone County had the lowest unemployment rate of the three counties at 4.2 percent. Campbell County had an unemployment rate of 4.5 percent.

Between 1990 and 1995, employment by place of work (persons working in Northern Kentucky regardless of where they may live) increased by 21.3 percent, for a total of 21,353 new jobs. During this period, persons working in Kenton County increased by 10.8 percent (4,551 new jobs).

A review of persons working within the Northern Kentucky area by place of work (persons employed in Northern Kentucky regardless of where they may live) by industry type, shows that growth in the service sector of the economy, noted in the

TABLE 4-12
LABOR FORCE CHARACTERISTICS
1990-1995

AREA	YEAR	CIVILIAN LABOR FORCE	EMPLOYMENT	UN- EMPLOYMENT	RATE OF UNEMPLOYMENT
BOONE COUNTY	1990	30,919	29,874	1,045	3.4
	1991	32,727	31,060	1,667	5.1
	1992	33,638	31,826	1,812	5.4
	1993	33,936	32,257	1,679	4.9
	1994	34,433	32,845	1,588	4.6
	1995	36,700	35,151	1,549	4.2
CAMPBELL CO.	1990	41,593	39,992	1,601	3.8
	1991	42,823	40,566	2,257	5.3
	1992	42,877	40,318	2,559	6.0
	1993	43,003	40,864	2,139	5.0
	1994	43,502	41,609	1,893	4.4
	1995	44,223	42,237	1,986	4.5
KENTON CO.	1990	73,676	71,041	2,635	3.6
	1991	75,100	71,348	3,752	5.0
	1992	74,684	70,559	4,125	5.5
	1993	74,958	71,515	3,443	4.6
	1994	76,006	72,818	3,188	4.2
	1995	76,771	73,528	3,243	4.2
NO. KENTUCKY	1990	146,188	140,907	5,281	3.6
	1991	150,650	142,974	7,676	5.1
	1992	151,599	142,703	8,496	5.6
	1993	151,897	144,636	7,261	4.8
	1994	153,941	147,272	6,669	4.3
	1995	157,694	150,916	6,778	4.5
KENTUCKY	1990	1,767,000	1,664,000	103,000	5.8
	1991	1,755,000	1,625,000	129,000	7.4
	1992	1,767,000	1,645,000	122,000	6.9
	1993	1,801,000	1,690,000	111,000	6.2
	1994	1,825,000	1,727,000	98,000	5.4
	1995	1,861,315	1,760,990	100,325	5.4

SOURCE: Kentucky Workforce Development Cabinet, Department for Employment Services.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4-13
EMPLOYMENT BY PLACE OF RESIDENCE
1990-1995

YEAR	BOONE	CAMPBELL	KENTON	TOTAL NO. KENTUCKY
1990	29,874	39,992	71,041	140,907
1991	31,060	40,566	71,348	142,974
1992	31,826	40,318	70,559	142,703
1993	32,257	40,864	71,515	144,636
1994	32,845	41,609	72,818	147,272
1995	35,151	42,237	73,528	150,916
CHANGE 1990-1995	5,277	2,245	2,487	10,009
% CHANGE 1990-1995	17.7	5.6	3.5	7.1

SOURCE: Kentucky Workforce Development Cabinet, Department for Employment Services.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

1990 Area-Wide Plan Update, continued through 1992 (see [Figure 4-2](#) and [Table 4-14](#)). The largest percentage of the 21,353 new jobs in Northern Kentucky between 1990 and 1995 were in the service industry (25.1 percent of all new jobs). Although service jobs continued to employ approximately the same percentage of the total employment (24.1 percent), 5,352 new jobs were created in the service sector during this period (an increase of 22.4 percent). During this same period, manufacturing jobs increased from 15,286 to 19,439 jobs, an increase of 27.2 percent, making manufacturing jobs the second highest percentage of all new jobs (19.4 percent of new jobs). The finance, insurance and real estate industry and the transportation, communication and utilities industry showed the greatest growth, increasing by 72.7 percent and 37.9 percent respectively between 1990 and 1995, making finance, insurance and real estate 11.0 percent of all new jobs, while transportation, communication and utilities comprised 14.1 percent of all new jobs. The category of wholesale and retail continues to be the leading employment by industry type in Northern Kentucky, followed by services and manufacturing.

FIGURE 4 - 2

NEW JOBS IN NORTHERN KENTUCKY BY INDUSTRY TYPE
BY PLACE OF WORK
1990 -1995

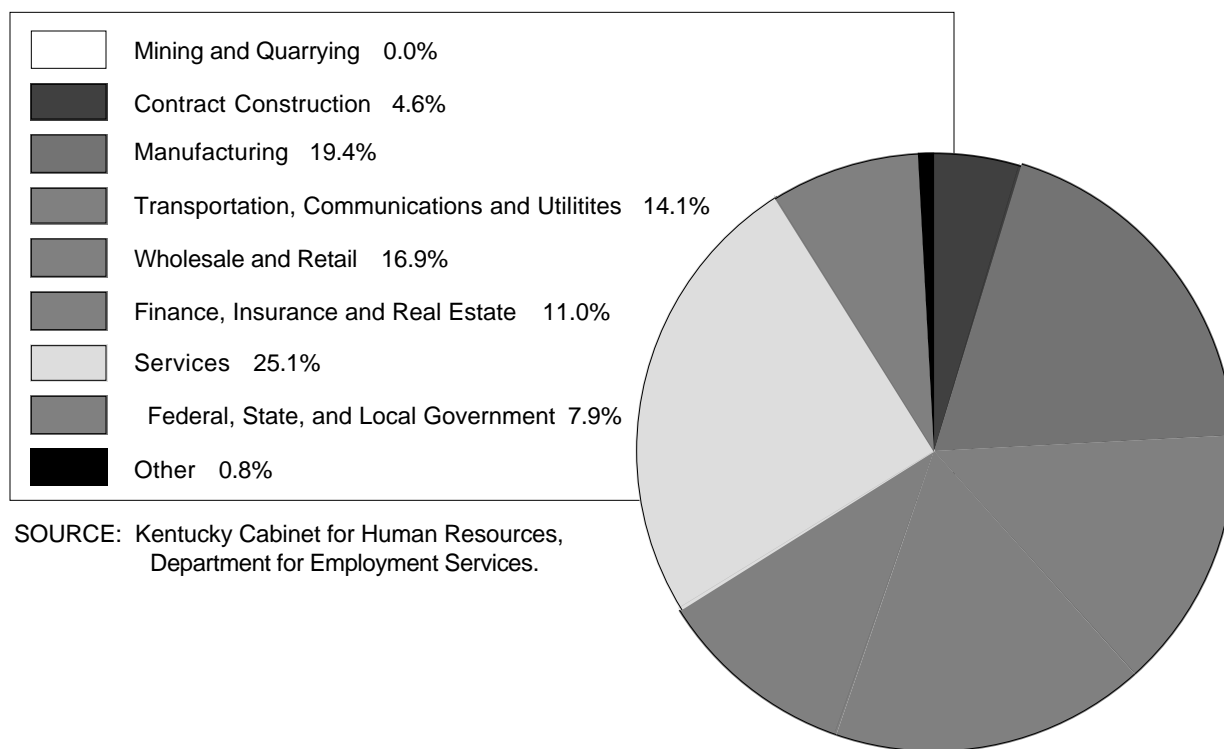


TABLE 4-14
EMPLOYMENT BY INDUSTRY TYPE (NON-AGRICULTURAL) BY PLACE OF WORK
1990-1995

INDUSTRY	1990				1995				CHANGE 1990-1995			
	KENTON CO.		NO. KENTUCKY*		KENTON CO.		NO. KENTUCKY		KENTON CO.		NO. KENTUCKY	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
MINING & QUARRYING	0	0.0	44	<0.01	0	0.0	51	0.04	0	0.0	7	15.9
CONTRACT CONSTRUCT.	2,906	6.9	5,297	5.3	3,351	7.2	6,286	5.2	445	15.3	989	18.7
MANUFACTURING	4,497	10.7	15,286	15.3	3,879	8.3	19,439	16.0	-618	-13.7	4,153	27.2
TRANSPORTATION COMMUNICATION, AND UTILITIES	1,188	2.8	7,947	7.9	1,601	3.4	10,962	9.0	413	34.8	3,015	37.9
WHOLESALE & RETAIL	14,058	33.4	32,470	32.4	14,386	30.9	36,084	29.7	328	2.3	3,614	11.1
FINANCE, INSURANCE, AND REAL ESTATE	1,732	4.1	3,236	3.2	2,706	5.8	5,590	4.6	974	56.2	2,354	72.7
SERVICES	12,626	30.0	23,888	23.9	14,762	31.7	29,240	24.1	2,136	16.9	5,352	22.4
FEDERAL, STATE AND LOCAL GOVERNMENT	4,876	11.6	11,323	11.3	5,703	12.2	13,014	10.7	827	17.0	1,691	14.9
OTHER	177	<0.01	591	<0.01	223	0.5	769	0.6	46	26.0	178	30.1
TOTAL	42,060	100.0	100,082	100.0	46,611	100.0	121,435	100.0	4,551	10.8	21,353	21.3

* Northern Kentucky: Boone, Campbell and Kenton Counties.

SOURCE: Kentucky Workforce Development Cabinet, Department for Employment Services.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

AGRICULTURAL PRODUCTION AND EMPLOYMENT

Up to this point, discussion of production and employment has been for the non-agricultural sector. This section presents statistics regarding production and employment in the agricultural sector, an important part of Northern Kentucky's economy. Data provided by the Kenton County cooperative extension service reveals that, in 1990, the food and agriculture sector in the Northern Kentucky area (defined in this section as including Boone, Kenton, Campbell, Gallatin, Grant, and Pendleton Counties), provided over 29,000 jobs (20 percent of all jobs) and generated 12 percent of the Northern Kentucky economy's income, a total of approximately 503 million dollars. Farming alone provided 5,260 jobs and generated approximately 60 million dollars in income.

[Table 4-15](#) shows the agricultural statistics for Boone, Campbell, and Kenton Counties for the years 1982, 1987, and 1992. Between 1982 and 1992, all three counties experienced a loss in number of farms and amount of farmland, the greatest loss occurring between 1982 and 1987. During this time period, Boone County lost 19.6 percent of its farmland while Kenton and Campbell Counties lost 5.5 percent and 4.7 percent, respectively. Between 1987 and 1992, Kenton and Boone Counties continued to lose farmland, but Campbell County gained 21 new farms (2,036 acres of farmland). In 1992, Boone County had the most farmland (80,864 acres), while Kenton and Campbell County followed with 44,188 acres and 43,447 acres, respectively. In the three county region, loss of harvested crop land accounted for approximately 19 percent of all farmland lost.

Although the number of farms and amount of farmland decreased between 1982 and 1992, total cash receipts increased ([see Figure 4-3](#)). Total cash receipts for Kenton, Campbell, and Boone Counties increased by approximately 12.8 percent, and approximately 69.1 percent of this increase was from crops, despite the 12 percent decrease in acres of harvested crop land. Campbell County had the largest increase (27.6 percent), Boone County increased its cash receipts by 18.3 percent, and Kenton County increased its cash receipts by 2.3 percent. In 1992, Boone County had the most cash receipts of the three counties, with \$17,970,000, followed by Kenton County with \$6,862,000 and Campbell County with \$6,359,000.

INCOME

In 1992, per capita income for Kenton County showed an approximate 35 percent increase over 1987, increasing from \$13,744 to \$18,576. Kenton County's 1992 per capita income was \$2,158 above the average for the state of Kentucky. Boone County had a slightly lower per capita income (\$18,417) than Kenton County, while Campbell County had a much lower per capita income (\$16,772) for the same period ([see Table 4-16](#)). Per capita income for the state of Kentucky in 1992 was \$16,418, an increase of 36.6 percent since 1987.

TABLE 4-15
AGRICULTURAL STATISTICS FOR
BOONE, CAMPBELL, AND KENTON COUNTIES

AREA	NUMBER OF FARMS	NUMBER OF ACRES IN FARMS	ACRES OF HARVESTED CROPLAND	LABOR FORCE * AGRICULTURAL EMPLOYMENT	CASH RECEIPTS
1982					
BOONE	962	105,390	24,942	469	\$15,184,000
CAMPBELL	545	43,467	9,288	290	\$4,983,000
KENTON	617	46,837	9,974	358	\$6,709,000
TOTAL	2,124	195,694	44,204	1,117	\$26,876,000
1987					
BOONE	810	84,750	18,479	471	\$12,633,000
CAMPBELL	512	41,411	8,674	283	\$4,309,000
KENTON	539	44,273	10,469	326	\$4,796,000
TOTAL	1,861	170,434	37,622	1,080	\$21,738,000
1992					
BOONE	798	80,864	18,709	440	\$17,970,000
CAMPBELL	533	43,447	10,280	265	\$6,359,000
KENTON	507	44,188	9,904	303	\$6,862,000
TOTAL	1,838	168,499	38,893	1,008	\$31,191,000

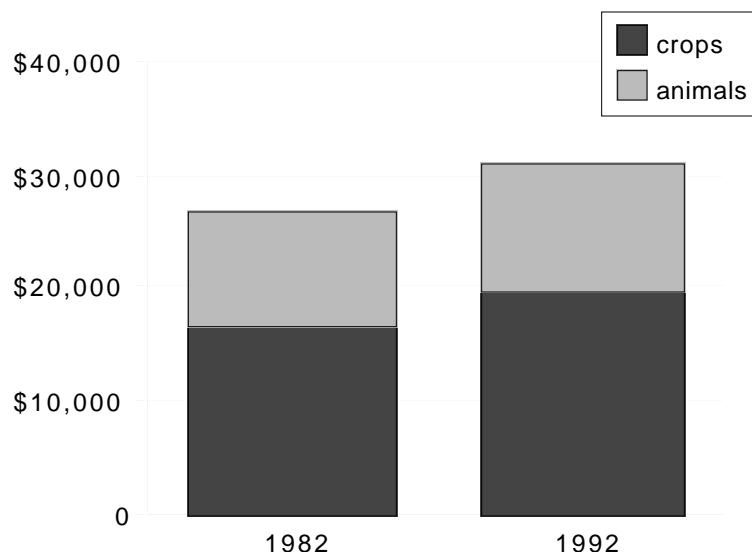
* By place of residence.

SOURCE: Kentucky Agricultural Statistics Service, Louisville, KY 1994-1995.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

FIGURE 4-3

BREAKDOWN OF AGRICULTURAL CASH
RECEIPTS FOR KENTON, CAMPBELL, AND
BOONE COUNTIES 1982 AND 1992



SOURCE: Kentucky Agricultural Statistics Service; Louisville, Ky 1994 - 1995

A closer evaluation of per capita income estimates for cities in Kenton County, shown in [Table 4-17](#), reveals the following for 1989: Crestview Hills recorded the highest per capita income at \$24,274. Edgewood, Fairview, Fort Mitchell, Lakeside Park, and Villa Hills recorded the next highest per capita incomes, each registering in excess of \$18,500, approximately \$2,800 above the per capita income for Kenton County as a whole. The lowest per capita income figures were recorded in Visalia, Latonia Lakes, and Kenton Vale.

The cities showing the largest percent increase in per capita income between 1983 and 1989 were Crestview Hills (109.3 percent), Fairview (119.9 percent), Visalia (86.0 percent), Fort Mitchell (63.5 percent), and Crescent Springs (61.4 percent). Those cities showing the least amount of increase were Ludlow (29.5 percent), Bromley (26.9 percent), Ryland Heights (25.8 percent), and Crescent Park (6.8 percent). Kenton Vale registered a decrease in per capita income of 29.1 percent.

TABLE 4-16
PER CAPITA INCOME
1987-1992

AREA	1987	1988	1989	1990	1991	1992	% CHANGE 1987-1992
BOONE COUNTY	13,731	14,852	15,997	17,083	17,430	18,417	34.1
CAMPBELL CO.	12,996	13,782	14,686	15,592	16,086	16,772	29.1
KENTON CO.	13,744	14,787	15,707	16,834	17,491	18,576	35.2
KENTUCKY	12,015	12,751	13,756	14,747	15,429	16,418	36.6

SOURCE: U.S. Department of Commerce, Bureau of the Census 1990.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4-17
PER CAPITA INCOME ESTIMATES FOR KENTON COUNTY CITIES
1983-1989

CITY	1983	1985	1989	PERCENT CHANGE 1983-1989
BROMLEY	7,787	8,950	9,879	26.9
COVINGTON	7,190	8,016	10,293	43.2
CRESCENT PARK	11,780	14,251	12,582	6.8
CRESCENT SPRINGS	10,472	12,975	16,898	61.4
CRESTVIEW HILLS	11,598	14,030	24,274	109.3
EDGEWOOD	12,097	13,704	18,561	53.4
ELSMERE	7,313	8,424	10,159	38.9
ERLANGER	8,771	10,067	13,303	51.7
FAIRVIEW	8,755	10,529	19,248	119.9
FORT MITCHELL	12,794	14,708	20,919	63.5
FORT WRIGHT	11,758	13,511	18,318	55.8
INDEPENDENCE	8,409	9,609	12,564	49.4
KENTON VALE	10,893	13,068	7,728	-29.1
LAKESIDE PARK	12,156	13,960	18,692	53.8
LATONIA LAKES	6,311	7,598	9,296	47.3
LUDLOW	7,604	8,472	9,847	29.5
PARK HILLS	10,502	12,107	16,523	57.3
RYLAND HEIGHTS	8,548	10,325	10,751	25.8
TAYLOR MILL	9,382	10,792	12,338	31.5
VILLA HILLS	12,579	14,967	18,727	48.9
VISALIA	4,909	5,859	9,133	86.0

SOURCE: U.S. Department of Commerce, Bureau of the Census: 1990 Per Capita Income Estimates for Counties and Incorporated places as provided by the Kentucky State Data Center.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

One measure of the economic well being of an area is the Effective Buying Income (EBI). The EBI, otherwise known as "disposable income", is the total personal income of an individual, less personal tax and non-tax payments. This information indicates the amount of after tax income that residents can spend for goods and services. [Table 4-18](#) provides this information for Northern Kentucky. The EBI for the three-county region was greater than that of the state of Kentucky whose median was \$28,461 in 1994. The median EBI for Boone County was \$44,141, followed by Campbell and Kenton Counties which were \$39,301 and \$37,337, respectively. These figures show that this area has strong purchasing potential and, therefore, a healthy economy as indicated by the fact that, in general, households in the three county area can spend more on goods and services than the average Kentucky household.

Further, a comparison of income classes for the three Northern Kentucky Counties show that in 1994, a higher percentage of households fell into the \$50,000 and over income class category (42.3 percent), while the highest percentage of the households in the state of Kentucky (23.3 percent) fell into the \$20,000 - \$34,999 income class category. The next largest percentage of households in Boone County are found in the \$35,000 - \$49,999 income class category (20.7 percent), whereas the next largest percentage of households in Campbell and Kenton Counties fall into the \$20,000 - \$34,999 income class category (20.2 and 22.1 percent, respectively). The second largest percentage of households in the state of Kentucky fall into the \$50,000 and over category ([see Table 4-18](#)).

RETAIL SALES

Between 1990 and 1994, Kenton County led Campbell and Boone Counties in retail sales in food, eating and drinking, and pharmaceuticals (drugs), while Boone County led in sales of general merchandise, furniture and appliances, and automobiles. A comparison of retail sales show that priorities differ between the three counties. In Campbell and Kenton Counties, food comprises the number one retail sales item, whereas automotive leads all sales in Boone County, followed by general merchandise. This is most likely the result of the strong retail base created by the Florence Mall and the other retail establishments in close proximity to the mall. As a major regional retail center, this mall attracts customers from a wide area. This, coupled with the fact that Boone County has a relatively small total population, can create this disparity in retail sales, because primarily only local residents will purchase food products. Automotive sales comprised the second largest group of retail sales in Campbell County while eating and drinking achieved the second highest sales in Kenton County. The least amount of sales from 1990 to 1994, in Kenton and Campbell Counties, were sales of furniture and appliances, and the least amount of sales in Boone County were from the sale of pharmaceuticals (drugs). In 1994, the three-county region comprised 8.6 percent of all retail sales in Kentucky, a slight increase from the 8.5 percent in 1990 ([see Table 4-19](#)).

TABLE 4-18
EFFECTIVE BUYING INCOME (EBI) *, BY INCOME CLASS
BOONE, CAMPBELL, KENTON COUNTIES AND KENTUCKY, 1994

INCOME CLASS	PERCENT OF HOUSEHOLDS			
	BOONE COUNTY	CAMPBELL COUNTY	KENTON COUNTY	KENTUCKY
\$10,000 - 19,999	10.8	13.4	13.8	18.8
\$20,000 - 34,999	19.0	20.2	22.1	23.3
\$35,000 - 49,999	20.7	19.4	20.7	17.6
\$50,000 AND OVER	42.3	36.3	32.8	22.9
TOTAL EBI (\$000)	\$1,111,737	\$1,421,637	\$2,352,246	\$51,170,009
MEDIAN HOUSEHOLD EBI	\$44,141	\$39,301	\$37,337	\$28,461

* Effective buying income is defined as personal income less personal tax and non tax payments - "disposable income."

SOURCE: *Sales & Marketing Management*, August, 1994.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 4-19
RETAIL SALES BY STORE GROUP (IN THOUSANDS)
1990 - 1994

AREA	YEAR	FOOD	EATING & DRINKING	GENERAL MDS.	FURNISH. /APPLNCE	AUTO- MOTIVE	DRUG	TOTAL RETAIL SALES
CAMPBELL COUNTY	1990	113,481	57,366	31,982	16,293	78,821	27,733	430,232
	1991	114,890	67,134	40,684	15,086	78,712	30,384	458,240
	1992	118,042	61,788	41,877	15,308	80,767	33,028	455,370
	1993	133,888	58,278	43,686	19,153	70,486	35,491	464,125
	1994	124,958	63,301	47,633	19,053	76,845	39,101	479,512
KENTON COUNTY	1990	172,090	116,267	102,603	27,359	97,291	36,660	741,679
	1991	157,261	132,693	108,087	30,789	106,458	38,162	799,629
	1992	169,873	146,318	98,494	30,953	103,991	44,477	825,510
	1993	204,073	158,687	97,072	36,217	92,022	49,038	887,373
	1994	198,261	162,322	108,766	36,497	98,226	54,031	934,448
BOONE COUNTY	1990	88,457	64,764	133,648	31,143	176,425	25,445	733,424
	1991	79,897	65,647	136,153	35,070	192,610	31,134	772,436
	1992	82,360	66,173	152,048	38,851	184,060	35,960	802,131
	1993	100,240	70,545	173,832	52,711	170,351	40,856	866,052
	1994	96,550	77,916	198,705	58,385	207,809	46,064	951,811
KENTUCKY	1990	4,667,319	2,136,783	2,969,164	978,115	5,024,269	983,882	22,465,835
	1991	4,810,340	2,229,881	3,268,806	1,019,984	5,144,769	1,078,823	23,860,802
	1992	5,027,576	2,270,832	3,448,368	1,036,416	4,901,506	1,156,788	24,097,976
	1993	5,988,333	2,427,563	3,775,661	1,336,581	4,326,791	1,226,409	25,585,287
	1994	5,876,853	2,610,554	4,180,087	1,436,513	5,080,689	1,323,561	27,507,194

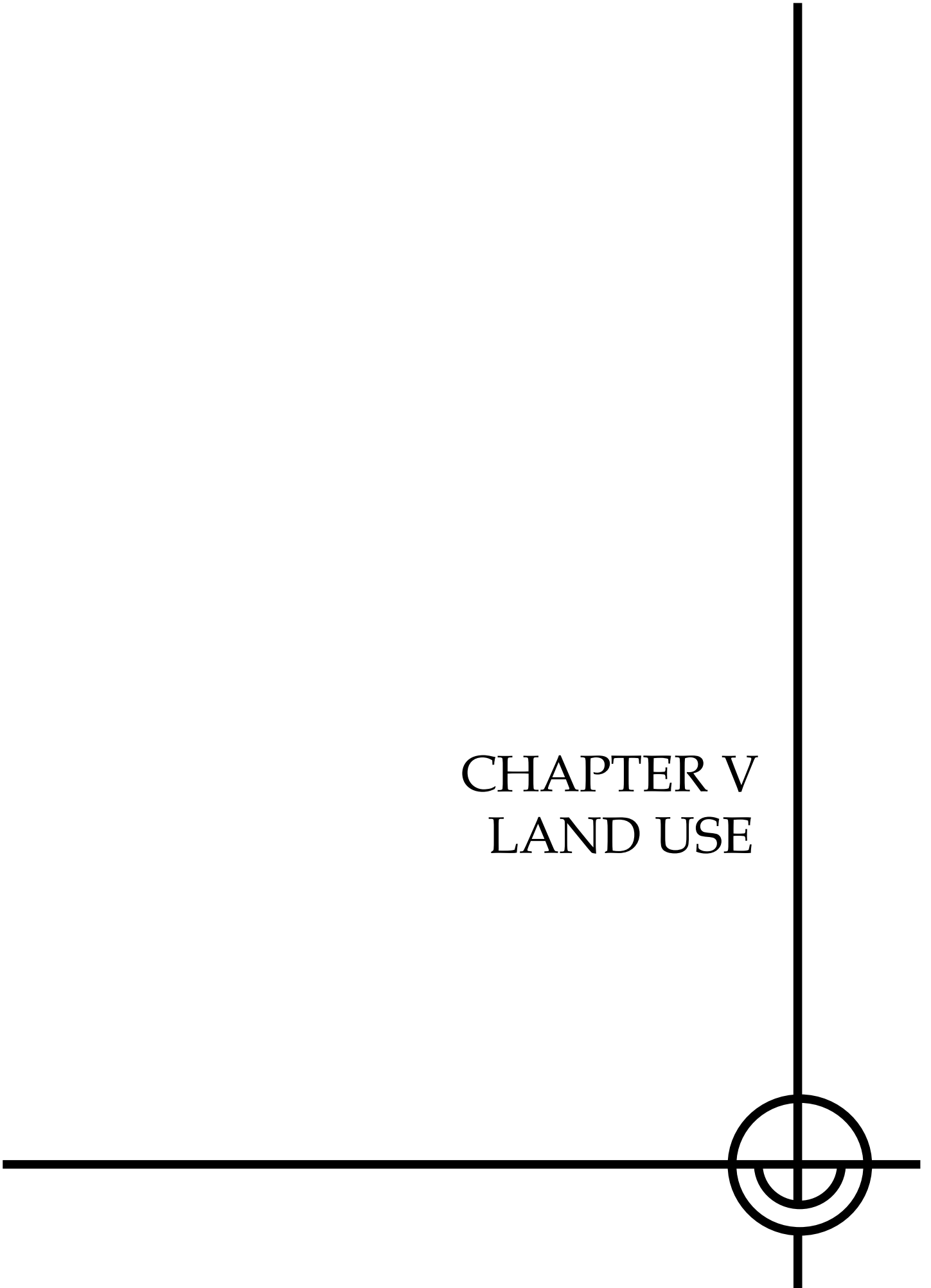
SOURCE: *Sales & Marketing Management*; vol. 142, August, 1990; vol. 143, August, 1991; vol. 144, August 1992; vol. 145, August 1993; vol. 146, August, 1994.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

SUMMARY / CONCLUSIONS

Information on population, housing and economic conditions in this Plan Update is similar to that contained in the previous update in 1991. This Update, however, includes additional information on senior and subsidized housing, and on agricultural production and employment, providing a more accurate review of future economic and housing conditions within the county.

The data presented in this chapter reflects a growing population and a strong economy for the entire three-county Northern Kentucky area. Kenton County is experiencing population growth, relatively high per capita income and purchasing power, and moderate, low unemployment. All indicators of growth for the area are positive (i.e., birth/death rates, income, retail sales, and employment/unemployment). There are, however, several trends occurring which must be monitored in Kenton County. These trends are in population characteristics which may eventually impact social and educational programs, and may even impact the economic aspects of growth in Kenton County. First, is the trend that is occurring in overall population growth. Growth is generally occurring because natural increases (births over deaths) are high and are off-setting the out migration of population. Currently, out migration is increasing in Kenton County. Second, is the increasing number of female-headed households with children under 18 years of age. The final trend to watch is the overall aging of the population. As there are less people in the school age and working population, and more in the retired population, there will be less population available to work and support those who do not work. Additionally, facilities and services for an aging population must be provided, which may impact the provision of other necessary services.

CHAPTER V
LAND USE



CHAPTER V

LAND USE

GENERAL

An analysis of existing land use indicates general characteristics of how land is presently used, the amount of vacant land potentially available for development, and trends of land consumption. This data is also utilized as partial basis for transportation, community facilities, and utilities planning.

EXISTING LAND USE ANALYSIS

In 1965, the Northern Kentucky Area Planning Commission conducted a detailed survey of existing land use for all of Campbell and Kenton Counties. The survey recorded how land was being used, by type of development, using a standard system of land use classification which included approximately 9,000 land use types. This land use classification system was a modification of the Housing and Home Finance Agency's land use manual - "Standard Land Use Coding Manual: A Standard System For Identifying And Coding Land Use Activities", Urban Renewal Administration, Housing and Home Finance Agency (now the Department of Housing and Urban Development) and Bureau of Public Roads, Department of Commerce, January, 1965.

For simplification of description, all types of development were then grouped into one of 19 different land use categories. This survey was updated for the same geographical area in the latter portion of 1969 and early 1970, and again in the summer and latter portion of 1975. The land use survey, for Kenton County only, was then updated in 1980, 1985 and 1990. Unlike the earlier surveys, the latter two surveys were prepared using aerial photographs to identify major areas of new construction.

In 1995 and 1996, for the preparation of the 1996 Area-Wide Comprehensive Plan Update, the NKAPC Geographic Information System (GIS) was utilized to more accurately evaluate existing land use. Like earlier existing land use surveys, a coding system - the Standard Industrial Classification Code¹ (SIC), with modifications for residential and other land uses, was used to classify land uses. The GIS system, which includes a layer of information identifying each parcel of land in Kenton County, allowed for classification, by parcel, of every parcel in the county. This task was accomplished by using information from the Property Valuation Administrator's (PVA)

¹ The Standard Industrial Classification (SIC) code is the statistical standard underlying all establishment based Federal economic statistics as classified by industry or business activity. The SIC is used to promote the comparability of establishment data describing various facets of the U.S. economy. The classification covers the entire field of economic activities and defines industries in accordance with the composition and structure of the economy. It is revised periodically by the U.S. Office of Management and Budget to reflect the economy's changing industrial organization.

office and supplemented by information available from building permits, aerial photographs, and other sources.

Research data on existing land use for Kenton County includes the amount and distribution of acreage by type of land use, and the trends exhibited in land use consumption between 1990 and 1995 (see [Table 5 - 1](#)).

Increased accuracy resulting from the use of the GIS system versus methods used in previous plan updates, results in several changes in acreage figures. For land use categories, increased acreages between 1990 and 1995 can partially be attributed to this increased accuracy.

Analysis of the 1995 existing land use survey, as shown on [Table 5-1](#), indicates that approximately 32 percent of the total land area within Kenton County is developed. Residential land use accounts for the largest portion of developed land, utilizing approximately 17 percent of the land area. The category of "Transportation, Utilities and Communications", which includes all road and railroad rights-of-way, utilizes approximately 8 percent of the total land area. All other categories each account for less than 5 percent of the land area. Undeveloped land, which includes vacant and agricultural land uses, accounts for approximately 68 percent of the total land area within Kenton County.

The 1996 Area-Wide Comprehensive Plan Update shows the following major changes in land use since 1990.

- In general, the majority of new residential development occurred in Independence, Elsmere, Taylor Mill, and southern portions of Covington and Erlanger. [Refer to Map 5A](#), indicating residential and non-residential development. A review of new residential development indicates approximately 3300 housing units were constructed in Kenton County between 1990 and 1995. Independence and surrounding areas in Unincorporated Kenton County had the largest increase with the addition of over 600 new housing units. Southern Covington was also strong during this period with the construction of almost 600 units. Erlanger and Elsmere continued to be areas of growth with approximately 550 and 300 units, respectively. Development in Taylor Mill added about 325 new houses. During the next five year period, it is anticipated that most of the new development will occur in the Independence area (a trend that recently began during this last period) since most of the northern urban areas will be nearing saturation with little vacant land available.
- The majority of commercial and office development has occurred primarily in the Crescent Springs and Edgewood/Crestview Hills and in the Thomas More Parkway area. In addition to these areas, the Fidelity Investments Headquarters, in Covington, has been constructed since the last plan update. This complex is still being developed, with other new development expected during the next five year period.

TABLE 5 - 1
EXISTING LAND USE INVENTORY
KENTON COUNTY
1995

LAND USE	APPROXIMATE ACRES	PERCENT OF DEVELOPED LAND	PERCENT OF TOTAL LAND
RESIDENTIAL	17,540	52.1	16.8
Single and Two Family	16,000	47.5	15.4
Multi - Family	770	2.3	0.7
Mobile Home	770	2.3	0.7
COMMERCIAL	1,720	5.1	1.7
Office	480	1.4	0.5
Retail / Service	1,240	3.7	1.2
INDUSTRIAL ⁽¹⁾	1,470	4.4	1.4
TRANSPORTATION, ⁽²⁾ UTILITIES, AND COMMUNICATIONS	7,890	23.4	7.5
PUBLIC AND SEMI - PUBLIC ⁽³⁾	5,030	15.0	4.8
TOTAL DEVELOPED LAND	33,650	100.0	32.2
TOTAL UNDEVELOPED LAND	70,900		67.8
TOTAL ALL LAND	104,550		100.0

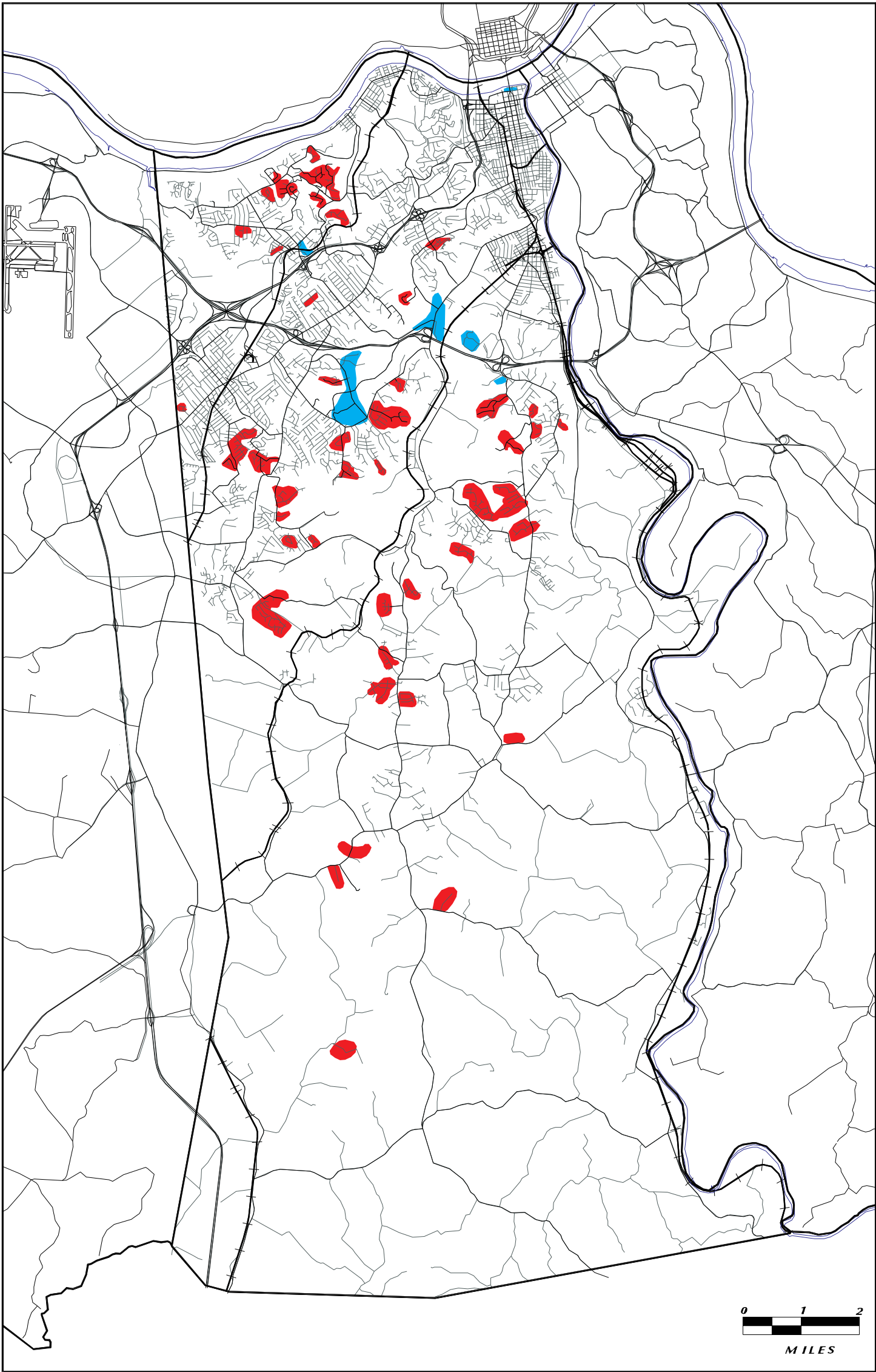
(1) Includes wholesale.

(2) Includes right - of - way.

(3) Includes public, private, and parochial schools and parks and recreation.

SOURCE: Northern Kentucky Area Planning Commission GIS analysis of existing conditions.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.



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The information presented in this product is accurate for planning purposes only

MAP
5A

1996 COMPREHENSIVE PLAN
KENTON COUNTY, KENTUCKY

GENERALIZED AREAS OF CHANGE
1990-1995

- Residential Development
- Non-Residential Development

PREPARED BY
NORTHERN KENTUCKY AREA PLANNING COMMISSION

- A new area-wide park, the Mills Road Park, has been constructed by the Kenton County Fiscal Court. In addition, the Kenton County Golf Courses on Richardson Road have been expanded to include another 18 holes, resulting in a total of 54 holes. This expansion was accomplished by partially utilizing land in the Banklick Woods Park. Additional land was then purchased to expand the Banklick Woods Park.
- New industrial development occurred in the industrial park off of Industrial Road, in Covington along the Madison Pike corridor, south of I - 275, and along the railroad in the center portion of Covington.

LAND USE PLAN ELEMENT UPDATE -- PREPARATION AND METHODOLOGY

The Land Use Plan Element has traditionally been the most critical element of the Comprehensive Plan, since it forms the primary basis for: 1) decisions involving future land development patterns and needs and their relationship to development in adjacent and surrounding areas; 2) local zoning decisions; and 3) new subdivision development. In September 1972, the Northern Kentucky Area Planning Commission adopted the first Area-Wide Comprehensive Plan for Campbell and Kenton Counties. Since 1972, the Plan has been updated three times (1981, 1986, and 1991) in accordance with KRS Chapter 100, which requires the plan to be reviewed and updated, as necessary, every five years.

Further detail regarding the history of the Area-Wide Comprehensive Plan and background about this update can be found in [Chapter I](#). The process to update the 1991 Comprehensive Plan consisted of the following steps:

1. Identification of all public facilities (e.g., schools, parks, fire stations, etc.) which had been built or planned to be built since the 1991 Plan Update;
2. Identification of areas where development, which was not in agreement with the Comprehensive Plan, has occurred since the last Plan Update;
3. Identification of changing conditions which potentially effect land development;
4. Identification of major premises upon which development of the Area-Wide Comprehensive Plan Update for the Northern Kentucky Area was based. These major premises, which show consistency with the concept of sustainable development, are as follows:
 - a. A realistic, long-range plan for Kenton County must be viewed and developed as a single-area effort, not as a series of comprehensive plans prepared for each individual sector as separate entities. Development of a series of individual plans would, in fact, be constricted by arbitrary jurisdictional boundaries, could hardly take full advantage of the area's resources, and would likely result in perpetuation of inter-area

competition to gain tax advantage. This does not preclude, however, the need for more detailed smaller area planning to effectively deal with problems which are highly localized, but only after the area-wide planning approach has been completed.

- b. Due to the size of the area to be served and the anticipated growth needs of the county, the entire Kenton County area cannot be economically provided with all urban services during the planning period. Thus, it would be unreasonable to anticipate or promote urban development throughout the entire Kenton County area. Conversely, such urban development should be properly planned and phased to prevent scattered and uncoordinated urban-like concentrations which could quickly outstrip the area's fiscal and physical ability to provide the full range of urban services to these areas.
- c. Timing of improvements necessary to serve anticipated population growth within developing areas is an essential element of the land development process. New development should be concentrated within those areas where urban services can be extended in a timely fashion so as to be available in close proximity when new population arrives.
- d. The urban service area is that portion of Kenton County which can be economically serviced with the full range of urban services during the planning period (primarily public water and centralized sanitary sewer facilities, but also inclusive of such facilities and services as: storm sewer facilities, adequate police and fire protection, street lighting, street cleaning, refuse collection and disposal, etc.). This area should be encouraged to be developed for urban-type densities and activities. This development should occur in a planned logical sequence extending out from existing urban development so that such urban services can be properly planned for and extended at the time.

Since most of the northern portion of Kenton County could be economically and feasibly provided with urban services in a properly planned phasing of improvements, it is anticipated that these areas would be at least partially developed for some urban type functions by the target year.

- e. The non-urban service area is that portion of Kenton County that cannot be economically provided with the full range of urban services during the planning period. Effort in these areas should be to retain their rural character, promoting their use for agricultural and related purposes, and low density residential development.
- f. Mixed type land uses should be encouraged where uses can be effectively screened, buffered and properly integrated as planned areas. The mix of planned office, shopping/entertainment and residential uses

or the use of residential units above the first floor in commercial shopping areas would be a good example of this concept. Such well designed mixed land use development would have the additional benefit of preserving energy, reducing travel trips, improving air quality and the realization of recommended sustainable development concepts.

- g. Some areas may be recommended to be redeveloped for uses other than their present use in order to eliminate existing or anticipated problem types of development and to insure compatibility with overall plan recommendations.
 - h. Land development along the area's waterways should be carefully planned. To insure optimal utilization of these areas, consideration should be given to adjacent type uses (existing and planned), environmental impact (nearness to water and sewage treatment facilities, water quality impact, etc.) and other assets (e.g., public access) and limitations (e.g., flood plain protection) of waterfront development. Further detailed study of these waterfront areas is very important in order to maintain their unique setting within the Northern Kentucky Area. Planning on both sides of all such waterways should be properly coordinated with adjacent states and within the Northern Kentucky Region.
 - i. A very basic premise of this planning effort is that recommendations are aimed at "how land should be developed over the next 20 years" rather than "how much should be developed". Thus, the plan consents to accept less sophistication in the projected land use acreage determination while placing more importance on insuring that development takes place in accordance with plan recommendations. If development occurs at a faster or slower rate than anticipated, planning for service systems will have to be modified -- extended or developed at a more rapid or slower rate. But, the integrity of the plan will not have been sacrificed -- development will still be taking place in accord with Land Use Plan recommendations. Since the plan must be updated every five years, this will provide an opportunity to review and make the necessary modifications to ensure that the long range needs are being adequately met.
6. Finally, a set of "*Development Concepts*" that were used in the 1986 and 1991 Comprehensive Plan Update were reevaluated as guides for preparation of this Land Use Plan Update. These concepts represent a further degree of detail from the Goals and Objectives. Development concepts are described in Chapter II along with the Goals and Objectives, which also serve as guidelines for preparation of this Plan Update.

SPECIFIC STUDIES, CHAPTER 99 DEVELOPMENT PLANS, AGRICULTURAL DISTRICTS, AND HISTORIC PRESERVATION

SPECIFIC STUDIES

Several studies have been prepared since the 1991 Plan Update which go into more detail than identified within the framework of the comprehensive plan. These studies provide clarification as to the type of development which is being encouraged for various areas within the county. These studies are included as a part of this Plan Update (a copy of these studies are on file in the NKAPC offices) and adopted as part of this Plan Update. New specific studies completed by the city of Covington since the last Plan Update are summarized below:

- **Lewisburg Neighborhood Development Plan** (February 1994) - This report covers an area bounded by Kentucky State Route 8 to the north, the Covington city limits to the south, the I-71/I-75 interstate to the east, and Devou Park and the City of Park Hills to the west. The residents of Lewisburg and the City of Covington's Economic Development Department put together this report with the goal of creating a strong, safe, and stable neighborhood in the primarily residential area cut off from the rest of the city by the I-71/I-75 interstate. To accomplish this goal, the report recommends the following: the creation and sustainability of a community organization dedicated to improving the neighborhood; the building of a neighborhood commercial center to be located around the intersection of Pike, Western, and Montague Streets; and the attraction of new residents and investment to the area by new residential construction (including several infill opportunities), rehabilitation of existing buildings, and marketing of the neighborhood. The Lewisburg Neighborhood Association (LNA) was created in April of 1993 to assist in implementing the plan, and Lewisburg was entered in the National Register of Historic Places on November 5, 1993.
- **Pike Street Corridor Urban Design and Revitalization Guidelines** (March 1994) - This report covers the Pike Street corridor from I-75 northeast to downtown Covington. Due to its location between I-75 and the downtown area, Pike Street is an important transportation route, and therefore creates a gateway into Covington and establishes an image for the city. Thus this report was written to retain and develop Pike Street as a connector and gateway between the interstate and Covington while conserving the historic and neighborhood character. Recommendations include a street tree program (with period light fixtures to follow in the future); planned and limited development of automobile-intensive uses; neighborhood conservation; and a possibility of flex office space. The report also develops separate urban design initiatives and guidelines for three distinct sections of Pike Street defined in the plan as: I-75 Frontage (the area closest to the highway), the City Gateway (I-75 to Main Street) and Upper Pike Street/Historic Core (Main Street to downtown).

CHAPTER 99 DEVELOPMENT PLANS AND AGRICULTURAL DISTRICTS

Redevelopment/Urban Renewal Districts

The City of Covington has prepared a number of Kentucky Revised Statute (KRS) Chapter 99 Development Plans, which like the previously mentioned specific studies, are adopted a part of the Area-Wide Comprehensive Plan Update.

KRS Chapter 99 recognizes that areas where substandard and unsanitary buildings prevail are conducive to the spread of disease and crime, and impair the economic value of surrounding areas. Therefore, for the protection of the health, safety, and welfare of the citizens, KRS Chapter 99 allows for the elimination and redevelopment of these blighted areas through clearance, replanning, rehabilitation, and/or construction. Because such large scale redevelopment is costly and difficult for individual owners, KRS Chapter 99 declares redevelopment an appropriate use for public funds, and if necessary, permits for public acquisition of these areas through the powers of eminent domain. These statutes also permit clearance of the land if conservation and rehabilitation are impractical. In short, under KRS Chapter 99, the government can acquire, demolish, remove and/or rehabilitate existing property to remove and prevent the spread of blight or deterioration, or to provide land for needed public facilities. The plans, summarized as follows, are required in order to utilize the provisions of KRS Chapter 99:

- **Westside Industrial Urban Renewal Plan (May 1968)** - This report covers an area bounded by the Ohio River to the north, Fourth Street to the south, Johnson Street to the east, and Western Avenue to the west. The objectives of this plan include elimination of blighted and substandard buildings in the project area; elimination of incompatible land uses (compatible land uses are: medium density residential, public, semi-public, highway commercial, and compatible light industrial uses.); elimination of traffic congestion at the west ramp along Crescent Avenue and the intersection of Western Avenue and Kentucky State Route 8; increased tax revenue and employment; and the provision of needed public improvements. No rehabilitation and conservation is proposed within the project area. Instead, to accomplish these goals, the plan calls for the acquisition, clearance, and redevelopment of most of the project area. All redevelopment must meet the standards established in this plan. These include parking regulations, regulations for off-street loading and unloading, setback requirements, maximum lot coverage, height limitations, and standards for appearance including landscaping, signs, windows, and storefronts.

Although the report is named *Westside Industrial* Urban Renewal Plan, only the area between the CSX Railroad and Johnson Street is recommended for industrial development. This *light* industrial area only allows uses similar to, and compatible with the highway commercial uses that the plan allows, and the compatibility of these industrial uses must first be determined by an urban renewal board and the legislative body of the city. This small area

recommended for light industrial uses is in compliance with the current Comprehensive Plan, however, existing economic conditions present in the surrounding area suggest it should be examined for future redevelopment as a commercial mixed use area.

- **Central Covington Development Plan (January 1974)** - This report covers an area bounded by the Ohio River to the north, 10th Street and Madison Avenue to the south, the Licking River to the east, and the C & O Railroad to the west. The report provides the redevelopment and restoration strategy to prevent and eliminate blight for seven designated areas in the central core of the city. These areas are: the Riverside Redevelopment Area, the Riverside Restoration Area, the South Riverside Rehabilitation Area, the Central Commercial Rehabilitation Area, the Montgomery Street Rehabilitation Area, the Suspension West Planning Area, and the Civic Planning Area. The Riverside Redevelopment, Riverside Restoration, and South Riverside Rehabilitation Areas are planned for high, low, and medium density residential, respectively; the plan for the Central Commercial Rehabilitation Area consists of a central commercial core business district surrounded on all sides by general commercial uses; the Montgomery Street Rehabilitation Area and the Suspension West Planning Area are planned for highway office/commercial uses with some high density residential/office uses included in the Montgomery Street area; and the Civic Planning Area plan gives priority to public open spaces with the city-county building as a focal point. Much of the residential area in the Montgomery Street Area Rehabilitation Area as well as the Riverside and South Riverside Restoration Areas were removed from the plan in 1992 to minimize the time required to process building permits for residents. Additional Addenda to the plan have included: Development Standards and Controls for the Riverside Redevelopment Area; Central Commercial Rehabilitation Area Development Standards and Controls for the Pedestrian Mall; Covington Town Center Redevelopment Project Development Plan; Covington Riverside Redevelopment Plan (Suspension West Planning Area) - Phase II; Covington Riverside Redevelopment (Residential) Area; and the Central Covington Exterior Renovation Standards.
- **Main Street Development Plan (December 1976)** - This report covers an area bounded by Fifth Street to the north, Pike Street to the south (not including the properties along Pike Street), the C & O Railroad to the east, and the I-71/75 interstate to the west. The goal of this report is to maintain the predominately residential nature of the Main Street/West Side neighborhood while taking advantage of the architecture and history of the area, to generate tourism. The report seeks to resolve substandard housing and eliminate blight through the restoration and rehabilitation of existing buildings and by ensuring that all buildings meet city codes. Although, this is a KRS Chapter 99 plan, the goals and objectives are oriented toward rehabilitation and restoration without public acquisition of private land. Private investment is encouraged in both the residential restoration and preservation effort, and in the development and redevelopment of the specialized tourist theme of the commercial area.

- **Bavarian Brewery Development Plan (September 1996)** - This KRS Chapter 99 plan provides the strategy for coordinated and phased development of the block containing the Bavarian Brewery between 12th and Pike Streets and Main and

I-75. It identifies the redevelopment strategy of the main structure and the adjoining parcels. Since the completion of this plan, the historic Bavarian Brewery property has been redeveloped into the BrewWorks at the Party Source, which includes retail shops, restaurants and a micro-brewery. This facility opened for business in October, 1996.

The City of Covington is studying the areas currently covered by the commercial portion of the Central Covington Development Plan and the West Side Industrial Urban Renewal Plan for potential revisions.

Agricultural Districts

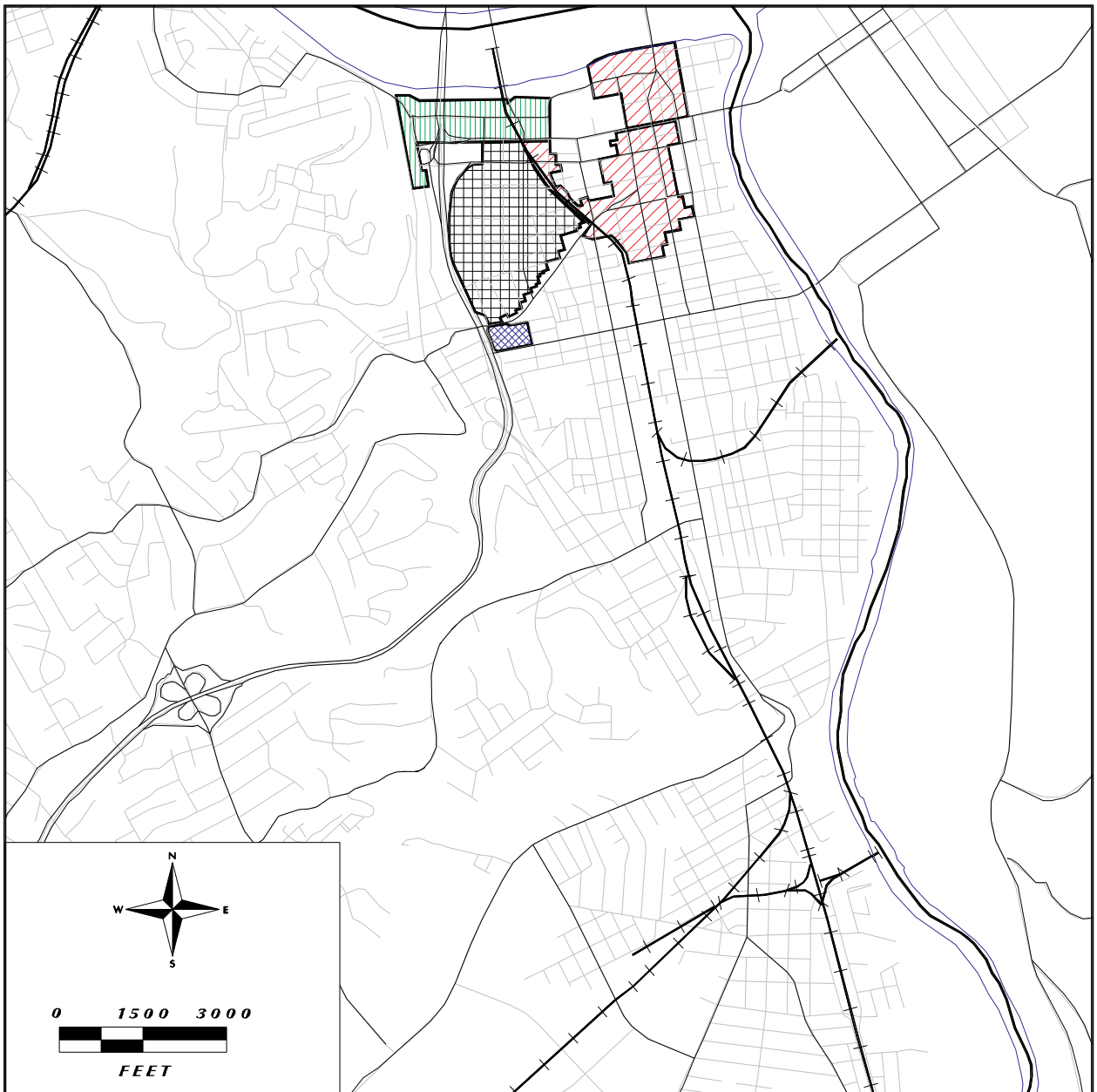
Kentucky Revised Statutes, Chapter 262 provides for the establishment of agricultural districts as a means of preserving land for agriculture. Under this program any landowner or group of owners may petition to their local conservation district for designation as an agricultural district, provided that a minimum of 250 contiguous acres of land are available. The purpose of these districts is to protect and enhance agricultural resources, which are under pressure from urban expansion, transportation systems, water impoundments, and industrial development, in order to preserve a sufficient land resource base to produce food and fiber for our future needs. Once they are formally established cities are not permitted to annex land within the district.

- In Kenton County there are five (5) designated KRS Chapter 262 districts. These districts include a total of 51 parcels and contain approximately 3800 acres of land.

Location maps of all KRS Chapter 99 and KRS Chapter 262 Districts are included on Maps [5B](#) and [5C](#).

HISTORIC PRESERVATION

Historic Preservation and the establishment of historic districts play an important role in Kenton County. Historic properties are cultural resources which provide more benefits than merely preserving our past for future generations to experience and enjoy. They provide economic development and tourism opportunities, which otherwise may not exist, within our urban areas. To date, historic preservation and the use of historic districts and historic overlay zoning has been primarily within the City of Covington. While most designated historic properties, either by state or federal standards (e.g. National Register of Historic Places), are located within Covington, several are located in other cities such as Lakeside Park, Ludlow and Fort Mitchell.

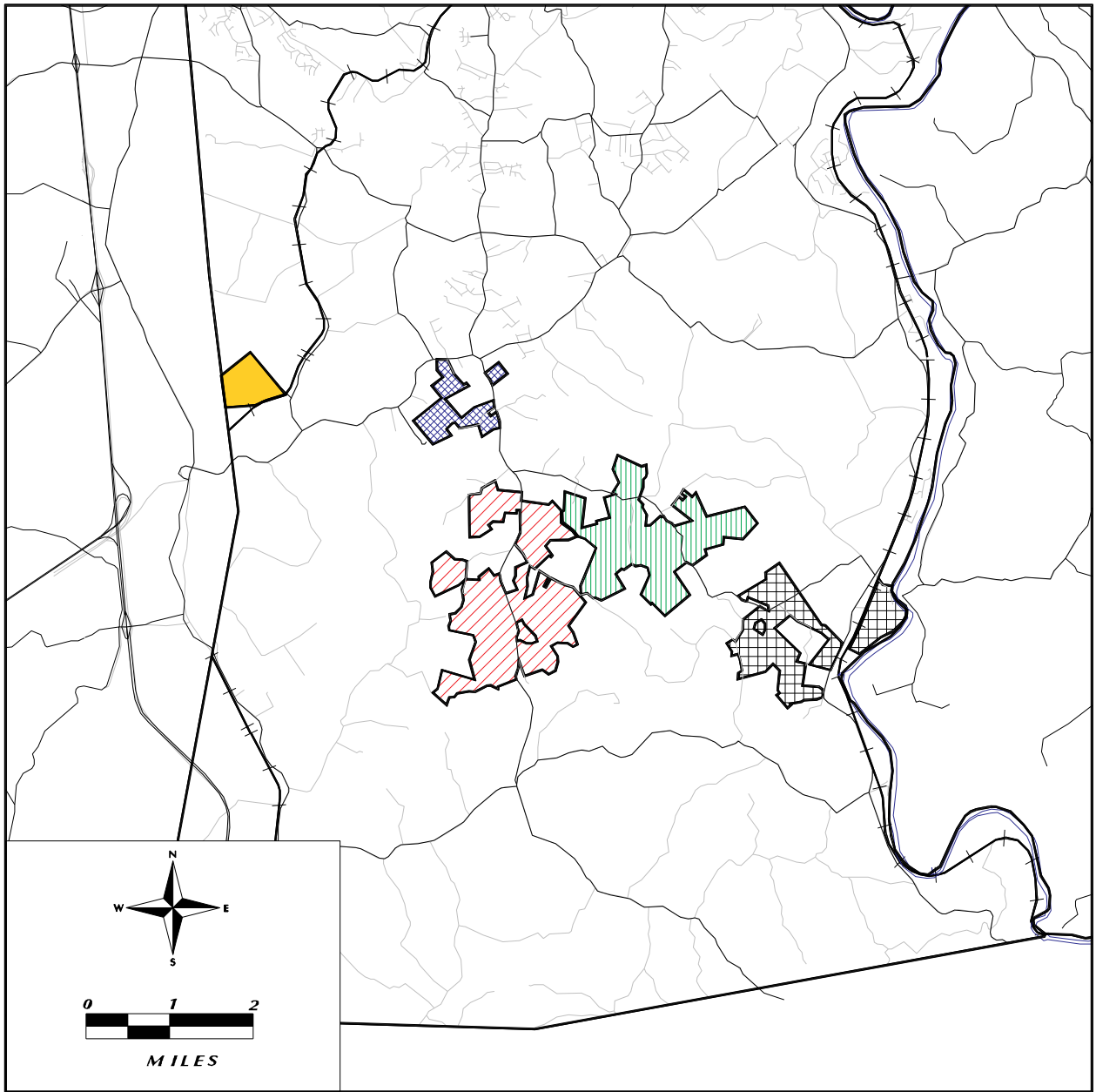


KENTUCKY REVISED STATUTES
CHAPTER 99 DISTRICTS






-  Central Covington Development Plan
-  Bavarian Brewery Urban Renewal Plan
-  Westside Industrial Urban Renewal Plan
-  Main Street Development Plan

Prepared by Northern Kentucky Area Planning Commission

MAP
5B



AGRICULTURAL DISTRICTS

-  1,453.7 Acres
-  208.0 Acres
-  1,098.9 Acres
-  845.2 Acres
-  262 Acres (66 ac. in Boone Co.)

Prepared by Northern Kentucky Area Planning Commission

MAP 5C

Historic properties may be listed on the National Register as either individual sites and/or as part of a larger historic district. Many individual buildings within historic districts may not be listed on the National Register as individual historic sites, but since they contribute to the historic character of the district, they enjoy economic and investment tax benefits, as do buildings within the district that are on the Register. Following are descriptions of historic districts in Covington that are listed on the National Register of Historic Places ([see map 5D](#)):

- **Ohio Riverside Historic District** The Ohio Riverside National Register Historic District (*NR November 1971*) is the oldest remaining residential district in Covington and represents a full spectrum of nineteenth century architectural styles. The district, located on Covington's east side between 4th Street and the Ohio River, encompasses the confluence of the Licking and Ohio Rivers, known as "The Point." In the early nineteenth century, this district was both the commercial and residential center of the city, but following the opening of the Cincinnati-Covington (now Roebling) Suspension Bridge, and the completion of the Kentucky Central Railroad terminal at Pike and Madison Streets, the commercial center of the city relocated to what is now downtown Covington, leaving the Ohio Riverside district to develop as a residential district. Its collection of nineteenth century homes includes examples of Federal, Queen Anne, and Colonial Revival building styles. The Daniel Carter Beard home, located on 3rd Street, is individually listed on the National Register.
- **Licking Riverside Historic District** The Licking Riverside National Register Historic District (*NR July 1975*) is an urban residential neighborhood that developed in the middle decades of the nineteenth century. The district, located along the Licking River extending from 4th to 8th Streets, consists of large mansions, row houses, apartment buildings, carriage houses and garages representing Greek Revival, Second Empire, Gothic, Italianate, Queen Anne, and Romanesque Revival architectural styles. Development began in the 1850s and '60s, and a number of imposing residences were built after Jonathan Hearne built his elegant Italianate home (also listed on the National Register) on Garrard Street in the 1870s. The area continued to develop through the early twentieth century, and several bungalows (typical of the 1920s) can be found in the district.
- **Seminary Square Historic District** The Seminary Square National Register Historic District (*NR May 1980*) is named after the Western Baptist Theological Institute, which owned most of the property in this part of Covington beginning in 1840. The area began to develop as a fashionable residential area in the mid-nineteenth century, in large part because of its elevation above, and distance from the Ohio River. The district consists of 130 buildings, most of which are residential.
- **Downtown Commercial Historic District** Covington's Downtown Commercial National Register Historic District (*NR June 1983, April 1991, January 1996*) is a cohesive grouping of approximately 200 commercial and

institutional buildings built in the late nineteenth and early twentieth century. The district is significant as the historic financial, commercial, and legal center of the city. The district is centered along Madison Avenue, from 4th Street south to Robbins Street. The buildings in the district were designed in the wide variety of architectural styles popular between c. 1850 to c. 1925. Several buildings in or near the Downtown Commercial District are individually listed in the National Register of Historic Places, including the Suspension Bridge (*NR 1975*), Trinity Episcopal Church at Fourth and Madison (*NR 1982*), the Odd Fellows Building at Fifth and Madison (*NR 1980*), and the Carnegie Arts Center at Robbins and Scott (*NR 1972*).

- **Wallace Woods Historic District** The Wallace Woods Historic District (*NR August 1983*) consists of 250 buildings built at the turn of the century. The area, located roughly between 20th and 24th Streets, from Madison Avenue east to the Licking River, was originally the site of three large country estates owned by wealthy Cincinnati families. The first subdivision occurred in 1895, after which the neighborhood developed rapidly. It is characterized by fashionable homes on large lots with natural landscaping. Architectural styles found in the district include Shingle, Georgian Revival, Tudor Revival, and Arts and Crafts.
- **Emery Price Historic District** The Emery Price National Register Historic District (*NR February 1987*) is a relatively small district, containing 144 buildings, most of which were built between 1840 and 1900. It is located along Scott and Greenup Streets, between 8th and Robbins Street. This district includes examples of Greek Revival, Italianate, Queen Anne, Second Empire and Colonial Revival styles of architecture. The area was settled by German and Irish immigrants. By the late nineteenth century, the area became one of the centers of Covington's small African American population, and was home to many of the city's African American professionals. Also found in the district are the recently renovated Emery Row townhouses in the 800 block of Scott, which were individually listed on the National Register in 1985.
- **Mutter Gottes Historic District** Mutter Gottes National Register Historic District (*NR May 1980*) is a primarily residential neighborhood comprised of two-story brick townhouses dating from the 1950s, '60s, and '70s. The district, located east of the CSX Railroad and north of Pike Street, was built by middle class German immigrants who settled in Covington in the 1940s. The majority of the buildings are Italianate townhouses with a few examples of Greek revival and a few commercial buildings. The Mother of God Church (Mutter Gottes Kirche), the district's landmark building, is individually listed on the National Register. The Italian Renaissance style church, established in 1841 and built in 1871, is the oldest Roman Catholic Church in continuous use in Covington.
- **Westside/MainStrasse Historic District** The Westside/MainStrasse National Register Historic District (*NR November 1983*) is a collection of approximately 800 buildings, mostly residential, built during an era when Covington was expanding rapidly. The district, located east of I-71/75 and

north of Pike Street, was developed between 1940 and the 1970s when German immigrants settled in Covington. Main Street and West Sixth Street, now known as MainStrasse Village, consists of mostly Greek Revival and Italianate commercial buildings and has always served as the commercial center of the district. The architectural styles in the district include Greek Revival, Gothic, Italianate, Second Empire, Queen Anne, and Romanesque ornamentation on what are primarily two and three story brick townhouses known as “Covington” townhouses. These townhouses were built following the Civil War and are characterized by a variety of ornamentation on a basic building type. This house type is found in Covington and other parts of Northern Kentucky but not typically anywhere else in the state.

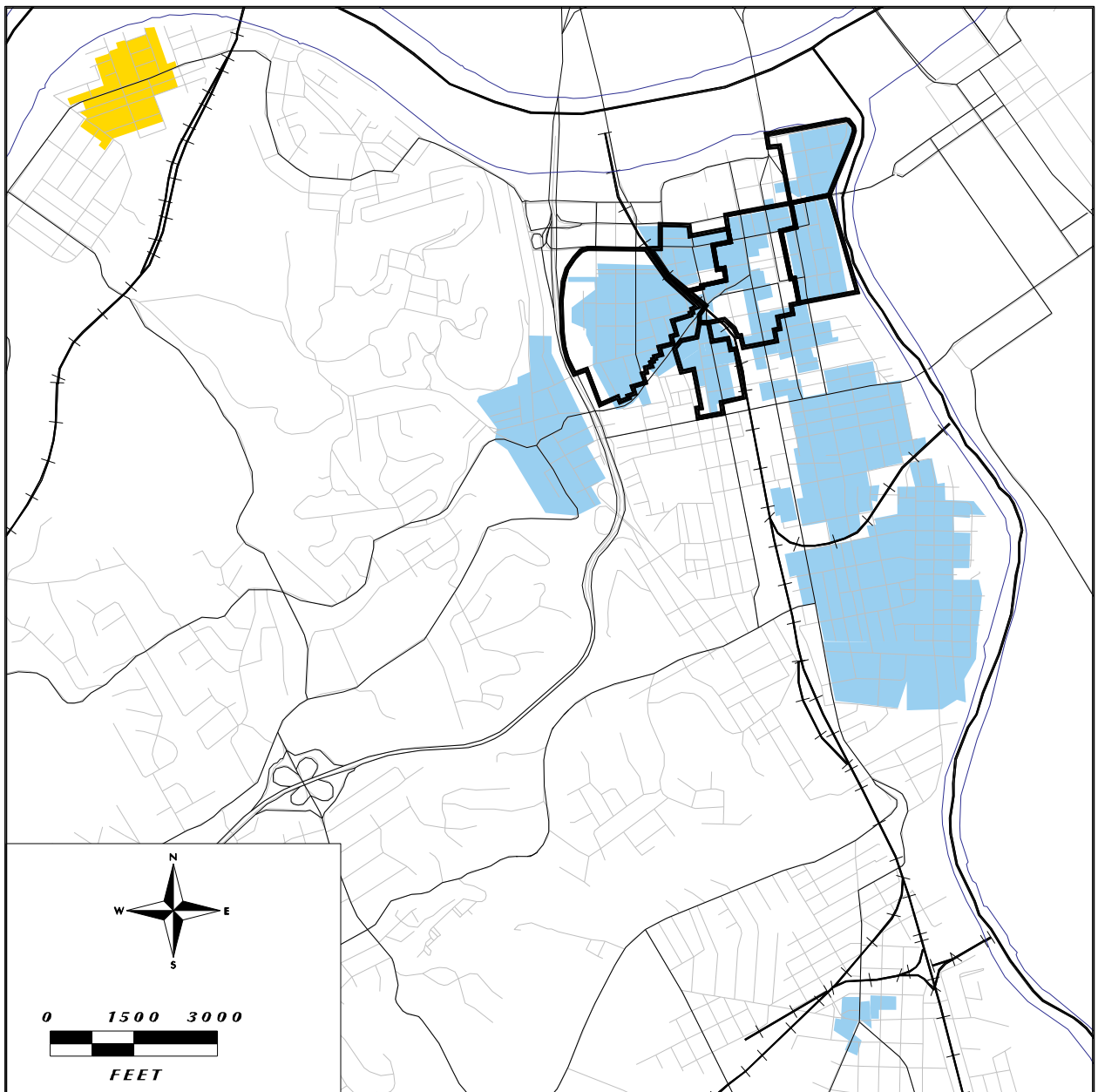
- **Helentown Historic District** The Helentown National Register Historic District (*NR February 1987*) is a large district with 895 buildings that are primarily single-family and multi-family dwellings. The district, located on Covington’s east side, between 11th and 17th Streets, is significant for its large concentration of brick and frame Victorian architecture. The district is further enhanced by streetscapes with original wrought iron fences and brick sidewalks and alleys. This district developed primarily after 1867, when the completion of the Covington-Cincinnati (now Roebling) Suspension Bridge resulted in a building boom in Covington. The neighborhood was originally middle and working class, and was first settled by German and Irish immigrants. The Helentown district is also home to one individually listed property, the Patton-Carlisle House in the 1500 block of Garrard Street (*NR 1984*).
- **Holy Cross Church and School Historic District** The Holy Cross Church and School Complex (*NR April 1986*) is located in the Covington neighborhood of Latonia, near the Ritte’s Corner district. It consists of five buildings built between 1906 and 1940. The dominant building of this district and this section of Latonia is the stone church highlighted by twin towers. This church building, built in 1906 and designed by Cincinnati architect Edward J. Beiting, replaced an earlier building across the street. Other buildings in the complex include the rectory, elementary and high schools, and a convent (now used as church-related office space). The cluster is significant not only for its architecture but for its role in the spiritual life of this southern Covington neighborhood.
- **West Fifteenth Street Historic District** The West Fifteenth Street Historic District (*NR February 1987*) is located at the intersection of Fifteenth and Madison, and is a small district consisting of 32 buildings. Despite its small size, the district is significant for its architecture which includes two unusual and intact seven-unit Italianate row houses, a building type which is not typically found in Covington neighborhoods. The area developed in the 1880s and 1890s.
- **Austinburg Historic District** The Austinburg National Register Historic District (*NR February 1987*) is located on Covington’s east side between 17th and 20th Streets. It is an intact grouping of architecturally significant residential

and commercial buildings constructed between 1850 and 1935. The approximate 1,260 buildings in the district display the variety of styles of architecture popular during those years, including examples of Queen Anne, Italianate, and Colonial Revival. The neighborhood began to develop in the 1840s and '50s, when several landowners subdivided their country estates into lots. The area is named after Seneca Austin, one of the original landowners.




- **Ritte's Corner Commercial Historic District** The Ritte's Corner National Register Historic District (*NR March 1987*) contains 38 properties which are significant in the growth and development of the Covington neighborhood of Latonia. The district is the historic commercial center of the community, located at the intersection of Southern, Decoursey, and Winston Avenues. Most of the buildings in the district were constructed between 1880 and 1935. Found within the district are excellent examples of Italianate, Arts and Crafts, Neoclassical, and Art Deco styles.
- **Lewisburg Historic District** The Lewisburg National Register Historic District (*NR November 1993*) is located immediately west of I-71/75, with Pike Street running through the neighborhood. It consists of 450 buildings, which were built beginning in the 1840s, following the completion of the Lexington Turnpike (now Pike Street) from Covington. The district originally developed as a separate and self-sufficient community, due in large part to its physical separation from Covington by Willow Run Creek, now the site of the expressway. The district is characterized by its hilly terrain as well as its wide range of architectural styles juxtaposed with one another. Historically, the district was home to industrial and commercial uses, together with housing for the working class to middle class Covingtonians.
- **Lee Holman (Riddle Yates) Historic District** The Lee Holman (Riddle Yates) National Register Historic District (*NR July 1996*) contains both sides of Lee and Holman streets between Robbins and 12th Streets. It is characterized by unusual street layouts as a result of the juxtaposition of three separate subdivisions that meet in the district. The narrow streets contain closely spaced frame and brick working class housing dating from the mid nineteenth to the early twentieth century. The 150 buildings in the district are primarily residential, although some commercial buildings are found, most often on corners. The house styles in the district have been described by architectural historians as "modest and conservative examples of nineteenth century architecture". The neighborhood contains many examples of the Covington-Newport house type, which are usually 2-1/2 stories with two windows on the front and a side entry.

Other Historic Districts

In addition to the historic districts in the city of Covington, other districts have been created within the cities of Ft. Mitchell, Lakeside Park and Ludlow. These districts are shown on [Map 5E](#).

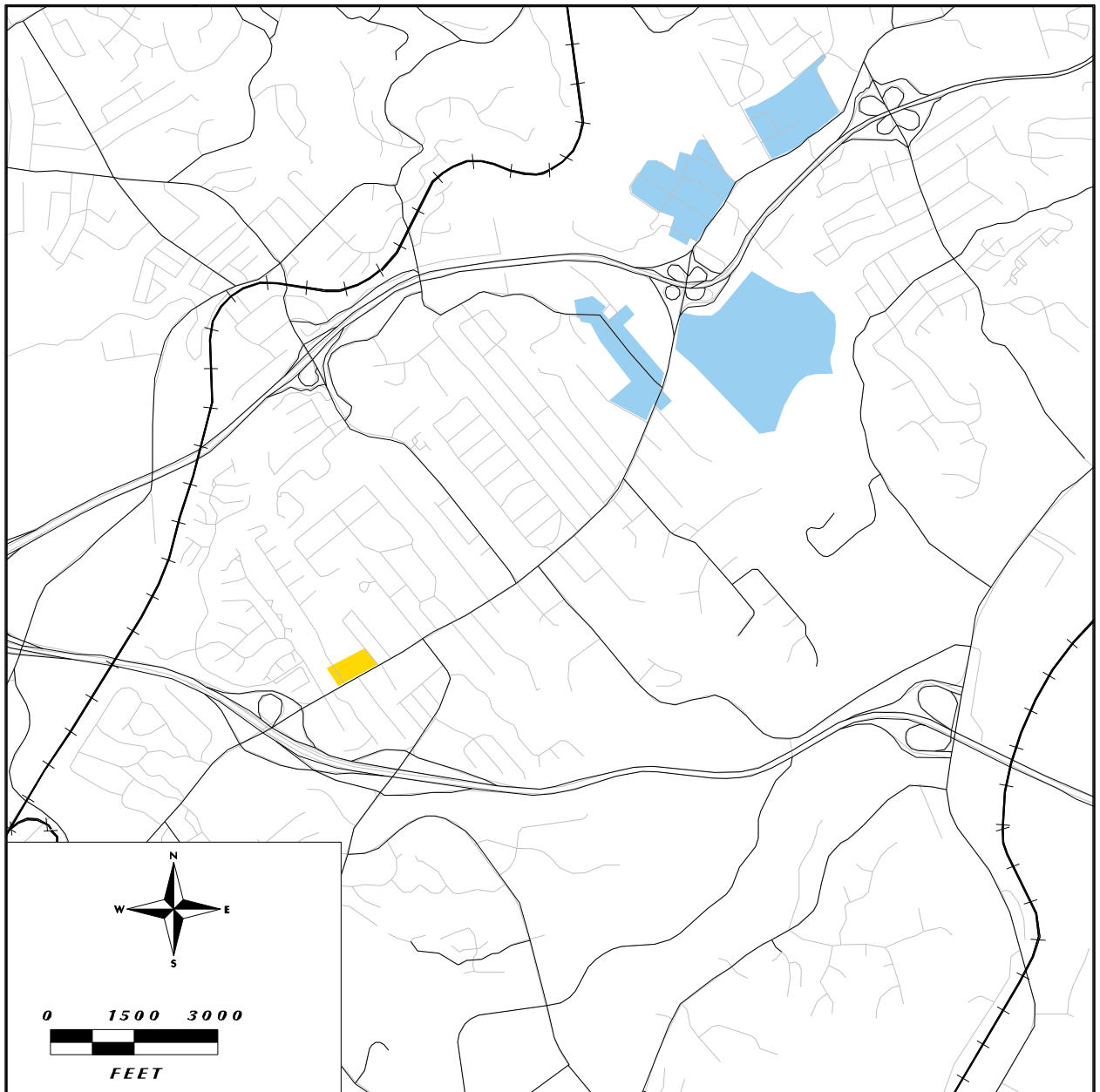


NATIONAL REGISTER HISTORIC DISTRICTS WITH HISTORIC OVERLAY ZONES



-  National Register Historic Districts, Covington
-  National Register Historic Districts, Ludlow
-  Historic Overlay Zones

Prepared by Northern Kentucky Area Planning Commission

MAP 5D



NATIONAL REGISTER HISTORIC DISTRICTS

-  National Register Historic Districts, Fort Mitchell
-  National Register Historic Districts, Lakeside Park

Prepared by Northern Kentucky Area Planning Commission

MAP 5E

Historic Preservation Overlay Zones

The city of Covington currently has six historic preservation areas with an overlay zone. They are: 1) the Ohio Riverside Overlay Zone; 2) the Licking Riverside Overlay Zone; 3) the Downtown Commercial Overlay Zone; 4) the Old Town/Mutter Gottes Overlay Zone; 5) the West side/Main Strasse Overlay Zone; and 6) the Seminary Square Overlay Zone. The purpose of the Historic Preservation (HP) Overlay Zone is to protect and preserve the exterior of the buildings and places within the zone. The HP Zone is an overlay zone and works in conjunction with the particular zone it overlays. Therefore, all principle permitted uses, accessory uses, and conditional uses are the same as the particular zone the structure is in. However, special conditions do apply in the HP zone. No alterations or remodeling is permitted that would destroy the historic architectural design; no demolition of buildings is permitted without being thoroughly checked by the zoning administrative official, building commissioner, and the Urban Design Review Board; and no construction is permitted that does not blend with the balance of architectural design in the zone. To enforce these conditions, all exterior work, painting, signs, additions, changes, and demolitions must be submitted to the Urban Design Review Board.

Although each case must be presented to the review board, “The Historic Covington Design Guidelines,” adopted in April of 1989, set the basic guidelines for historic preservation in the six Covington Historic Preservation areas with overlay zones. The guidelines give detailed guidance to property owners who wish to alter structures and sites within historic areas, and provide standards for the Urban Design Review Board to follow. “The Historic Covington Design Guidelines” set guidelines for: architectural details; new construction; public streetscape; equipment, utilities, and machinery; and demolition.

[Map 5D](#) shows the location of the National Register Historic Districts and Historic Overlay Zones in the city of Covington.

Historic Preservation Recommendations

Several issues were identified during the preparation of this Plan Update regarding development within historic districts. One issue, which is not solely an issue in historic districts, but also in much of the older urban areas, is the provision of convenient neighborhood commercial services. These primarily relate to those uses of a convenience nature which are intended to serve nearby residential areas. These commercial services are typically provided by “corner markets”. They are generally categorized as non-conforming uses within zoning ordinances, and they are zoned as part of the larger surrounding residential zoning classification. Another issue that has been identified is the lack of off-street parking, which creates problems due to the limited supply of on-street parking. Parking is a common problem in many of the older urban areas as these areas were initially developed prior to the use of the automobile as a mode of transportation. As a result, many properties, both residential and commercial, do not have sufficient area for off-street parking. One element of this

problem that was identified is the use of “free” on-street spaces in residential neighborhoods by employees of nearby commercial and office uses.

Another issue identified in the city of Covington was the potential negative impact of conversions of residential structures to non-residential uses. Intrusion of non-residential uses into viable historic residential neighborhoods is undesirable in terms of the impact on the cohesiveness of these residential areas. Secondly, most non-residential conversions involve office uses, which are seen as unnecessary and undesirable competition for planned nearby commercial/office areas. In Covington, the dynamics of the downtown area are such that office space is readily available due to vacancies within existing office buildings. The economic vitality of the urban area is partially dependent on the utilization of this space. Therefore, conversions may have a negative impact on other nearby areas. Finally, as previously mentioned, availability of parking in historic residential areas is a problem. These conversions are one part of the parking problem as they typically generate the need for more parking than residential uses.

This Plan Update recommends the following in regards to historic preservation:

- Historic preservation is an important element in the future of the Northern Kentucky community. This Plan Update encourages the continuation of historic preservation efforts currently underway and further encourages all local jurisdictions to identify and evaluate their historic resources and prepare plans for preserving them. As part of this effort, it is recommended that comprehensive surveys of potential historic sites/resources be conducted in both urban and rural Kenton County.
- Parking issues within historic districts, particularly in residential areas, must be addressed. Several possible solutions may be available. First, is the provision of shared off-street parking lots. These lots should be small with limited parking spaces and adequate landscaping to be attractive and compatible with the area. Second, residents of these areas who have a vested interest in the area have difficulty finding sufficient parking. It is recommended that a system of parking permits exclusively for residents of these areas be implemented that would give priority to them for on-street parking.
- Adaptive reuse is one of the most basic methods used to preserve historic properties. New uses for buildings initially designed and used for other uses, oftentimes provides the only economically feasible incentive for historic restoration. This plan supports adaptive reuse, but with the stipulation that all potential negative impacts to local neighborhoods and other areas, as previously described, be considered and mitigated. Furthermore, mitigating negative impacts should not be accomplished via demolition of other significant buildings, the removal of which may diminish the character of a designated historic district.

- Neighborhood commercial buildings in historic districts and other older urban areas, typified by the “corner market” should be maintained in order to continue providing convenience goods to these residential areas.
- Some of the concepts of sustainable development may be applied in some of the historic areas of our urban area by considering adaptive combinations of “mixed use/reuse”, helping to recognize long range objectives such as reducing travel trips, preserving energy, improving air quality, and retaining our natural/cultural heritage balance.

LAND USE PLAN ELEMENT DESCRIPTION

The following text describes the Recommended Land Use Plan, including a general description of each land use category and the general locations recommended for each type of land use. The Land Use Plan is maintained in the offices of the Northern Kentucky Area Planning Commission. A copy of the [Land Use Plan Map](#) is located in a pocket at the back of this document.

It is important to emphasize that the land use categories used in this Plan Update are purposefully broad. The density ranges for residential development, for example, are the same as used in the 1991 Plan Update. The plan's intent is to communicate that development, within the category descriptions, will be consistent with the plan's adopted Goals and Objectives and Development Concepts, and will be able to be appropriately served with existing and planned infrastructure and community facilities. The specific listing of what uses will be permitted in each of the zoning districts, and what densities (i.e., minimum lot size requirements) will be permitted, will be set by each of the legislative bodies following the adoption or amendment of their zoning ordinances.

URBAN SERVICE AREA/NON - URBAN SERVICE AREA

These designations are not types of land use, but rather, an indication of conditions which affect recommendations regarding future land uses. In order to understand how these terms are used, the reader must have a clear understanding of: (1) what is meant by the term "urban services"; and (2) the difference between urban and non-urban or rural development.

Urban Services

In all areas, urban and rural alike, certain community services are necessary: basic police and fire protection; emergency response services; public education, streets and highways, parks and recreation, libraries; public housing; code enforcement; health services; planning and zoning; solid waste disposal; civil defense; courts; jails; general government; and others. In areas where development takes on an urban character (e.g., more dense development on smaller parcels), it becomes necessary to provide additional and a higher level of these services to support this type development. Additional urban services necessary are: centralized water supply; centralized

sewage collection and disposal; solid waste collection and disposal; street cleaning; street lighting; storm water management; and higher levels of police and fire protection.

The urban service area, as designated on the Land Use Plan Map, is that area in which the full range of urban services is planned for and anticipated to be available during the planning period. The non-urban service area is that area where development will be rural in character, with less density and less demand for the full range of these services. Additionally, lower population density and physical restraints make provision of these services less economically feasible.

Urban Service Area

The territory included within the "Urban Service Area" includes the northern section of Kenton County (generally north of State Route 16) and a small area in southwestern Kenton County adjacent to, and within the urban service area of, the city of Walton, in Boone County. The "Urban Service Area" includes most of that part of Kenton County already developed in an urban fashion and at urban-like densities. It also includes many areas which are yet undeveloped, but which are expected to be developing at urban densities during the 20-year planning period.

State Route 16 generally forms the drainage boundary between the Banklick Creek Drainage Area (an area that flows north by gravity, eliminating need for excessive pumping), and the Upper Licking River Drainage Area which flows generally south from State Route 16 - an area that cannot be efficiently or economically provided with centralized sanitary sewer systems since flows would have to be pumped north towards the Dry Creek Sanitary Treatment Plant.

In time, if population projections should occur at a rate currently not anticipated, it may be necessary to enlarge the Urban Service Area of the Plan Update. However, now is not the time to do so as sufficient land has been set aside to adequately meet anticipated major growth needs throughout the planning period.

Urban Development

One major premise of this plan update is that areas recommended for urban development must be provided with the full range of urban services within the planning period (e.g., the area within the urban service boundary). In order for such services to be provided efficiently and economically, it is essential that urban development be concentrated in reasonably compact areas. Compact development makes maximum use of costly infrastructure (i.e., sewerage facilities, water system, streets, etc.), much of which is already in place. Such compact development also keeps, to a minimum, those costs which are directly related to the distance that must be traveled by service personnel (i.e., police and fire personnel, waste collection crews, street maintenance and street cleaning crews, school buses, etc.). Inherent in this premise is that timing of improvements be carefully coordinated with development so that all necessary services are available when new development occurs.

Goals and Objectives of the Comprehensive Plan which are critical in this regard are as follows:

Goal - Resources and Environment: *"To ensure the most efficient and reasonable utilization of the area's physical resources while ensuring that any short - term uses of man's environment will be to the long - range benefit of all. Constant effort should be made to ensure wise utilization or conservation of the area's resources to maximize advantages, simultaneously minimizing any detrimental effects such utilization may cause. Such efforts would encompass a broad range of concerns such as: identifying all environmentally sensitive areas and areas of critical concern; planning and scheduling the use or non - use of such areas; ...") ;and*

"To ensure that planning adequately considers methods of reducing energy consumption and that adequate protection is afforded all energy resources"; and "To provide all essential utility services as economically as possible. Effort should be made to ensure that essential utility services are provided in coordination with other plan goals so that uncoordinated and uneconomical development is not encouraged. In this regard, extension of utility systems can become one method of controlling the direction and timing of new development." (See Chapter II)

Non-Urban or Rural Development

Non-urban or rural development refers to development that is anticipated to occur within the Non-Urban Service Area, which generally includes the portion of the county south of State Route 16 as it traverses the county. For purposes of this Plan Update, non-urban or rural development is intended to mean that development should consist predominantly of: (1) agricultural uses; (2) single-family residential development, at very low densities; and (3) the necessary related land uses needed to support this type of development.

Rural development or development within the non-urban service area has been a concern in all previous Plan Updates. This Plan Update also recognizes these concerns, but proposes some different methods or strategies to address them. Further, during meetings with residents from the area as part of the South Kenton County Focus Group process, a variety of other concerns were raised which also need to be addressed. Summaries of development concerns within the non-urban service area are:

- Only limited areas exist in southern Kenton County that have favorable soil characteristics for use of on site sewage disposal systems. These areas which cannot be reasonably and economically provided with centralized sewerage facilities, should be kept in low densities to minimize the environmental impact of inadequate disposal systems.

- Directly related to on site sewage disposal systems is the provision of public water supply. Public water supply, in the absence of adequate centralized sewerage disposal, will likely result in an increase in water consumption, and the resulting increase in sewage may overload the capacity of on-site disposal systems, resulting in the potential for unacceptable environmental conditions and health hazards.
- Provision of public water supply into the non-urban service area is proceeding, and a need exists to insure that any further extension of water lines for both a safe and sanitary supply and for fire protection, is designed in such a manner as not to encourage urban type densities.
- Density has been an issue raised during previous plan updates. In the past recommendations have been made for increased minimum lot sizes and/or wider minimum road frontage requirements than those regulated in the current zoning ordinance, in order to maintain the low density rural character of the area. A two-fold concern or issue has been raised from the South Kenton County focus group as part of this plan update. First, is the desire to maintain the rural character of south Kenton County. Development of lots along existing roads detract from the rural character, as would the proliferation of rural subdivisions with one (1) acre lot sizes. A related concern is that the non-urban service area is attractive for new home development, due in part to the affordability of land and the desire of people to have more openness. The second concern voiced was the desire to continue to allow or provide means by which minimum lot sizes can remain as small as one (1) acre.
- Increased residential development within southern Kenton County creates the potential for conflicts with existing and future agricultural uses. Agricultural activities and residential development are generally incompatible, therefore, steps must be taken to protect existing agricultural activities, which provide a viable part of the economic base in south Kenton County.

It is the intent of this Plan Update to address these issues by recommending consideration of innovative land use techniques which promote the rural character of the Non-Urban Service Area. Techniques being used in other parts of the country that preserve open space and rural character, while still allowing residential development, offer possible solutions to development issues in the Non-Urban Service Area.

Conventional subdivision development, for example, often results in lots being created and homes constructed side by side along existing public roads. Typically, these lots are just wide enough at the roadway to meet minimum lot width requirements so as to allow for a maximum number of homesites along the existing road. Remaining lot area, required for development by zoning regulations, is obtained through lot length often extending back from the road several hundred feet and generally not very usable. The resulting pattern is one where rural roads are lined with homesites near the roadway, spaced very close together. Over time, rural roads take on the appearance of traditional suburban residential subdivisions. Views of rural country

sides and natural features, once in sight from these roads, become obstructed, and the “feel” of rural area open space is replaced by the feeling of being in a more typical urban area. This type of development also has the possible effect of land locking areas behind development along the roadways.

Maintaining the rural and open character of the Non-Urban Service Area is the objective of the recommendations of this Plan Update. Figures 5-1 and 5-2 show examples of conventional development techniques versus creative/innovative development techniques which should be pursued.

Creative or innovative land use techniques would require that open space be used along with lot design to maintain the rural feeling of “openness”. House sites would be buffered and set back substantial distances from existing public roads to maintain rural “open” character view. Other scenic vistas viewed from the roadway can be preserved as part of the required open space as well. Creative land use techniques can leave the view of the rural landscape relatively uncluttered for the continued enjoyment of the public and the residents who live in the area. Creative design seeks to preserve natural features, such as trees and streams, and utilize them in lot layout. This can result in a scene where homesites blend into the natural environment, thus preserving some of the rural and open character.

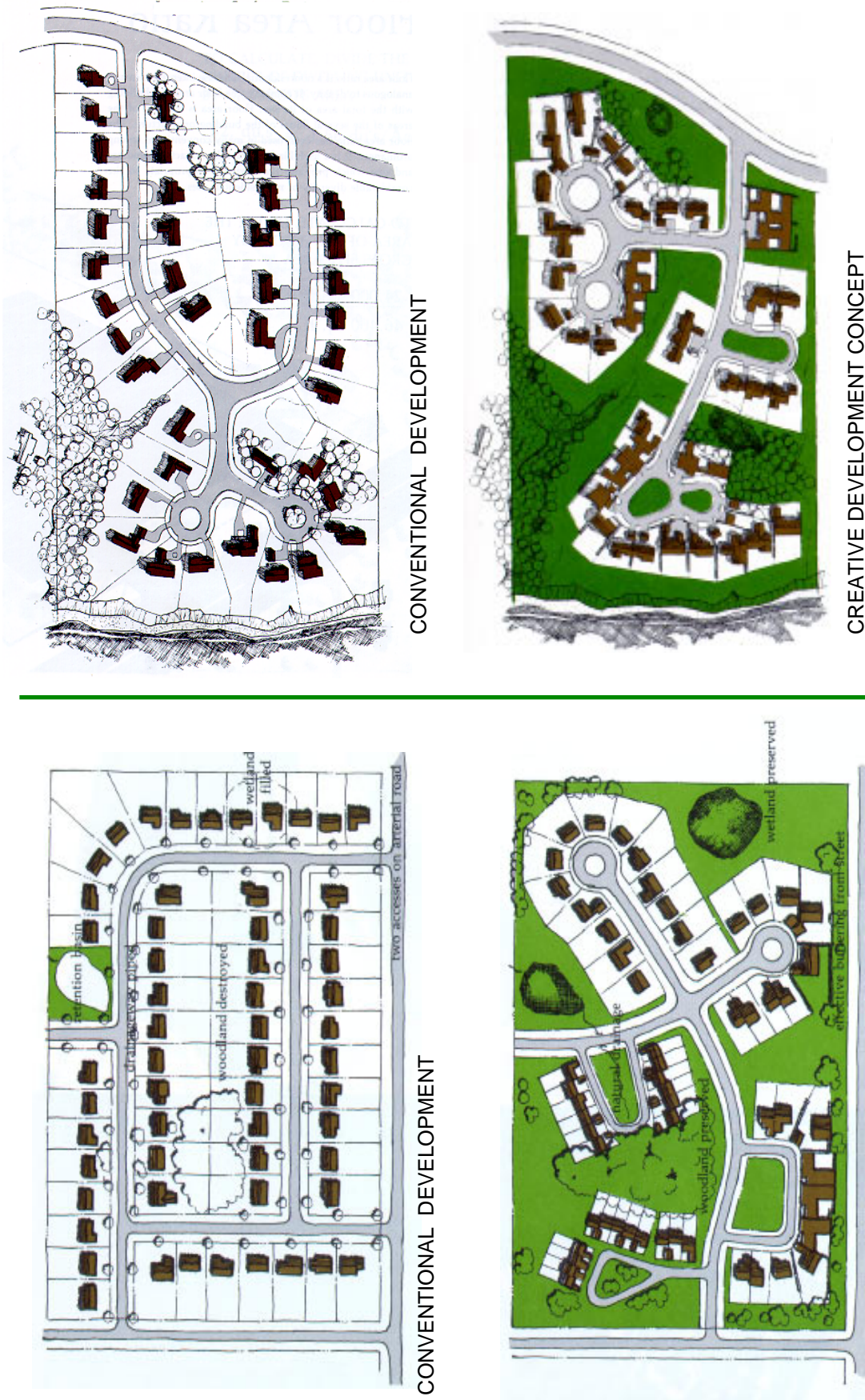
In order to realize these objectives, this Plan Update recommends an overall density of less than one dwelling unit per net acre. Lot layout and design must accomplish the feeling of openness, but more importantly, lots can be grouped in clusters using a smaller amount of available land than is usually the case with conventional development, while still being able to build the same number of houses (density) as if it were developed conventionally. In addition to preserving rural character, this open space may also be available for continued agricultural use such as field crops and grazing land. This open space also provides additional area for septic lines, extending out from the individual building sites in the event individual lot soil characteristics or lot layout make it more feasible to utilize such area for septic disposal.

Guidelines to incorporate such creative and innovative land use techniques will be included in the model zoning ordinance and subdivision regulations.

AGRICULTURAL AND RURAL USES

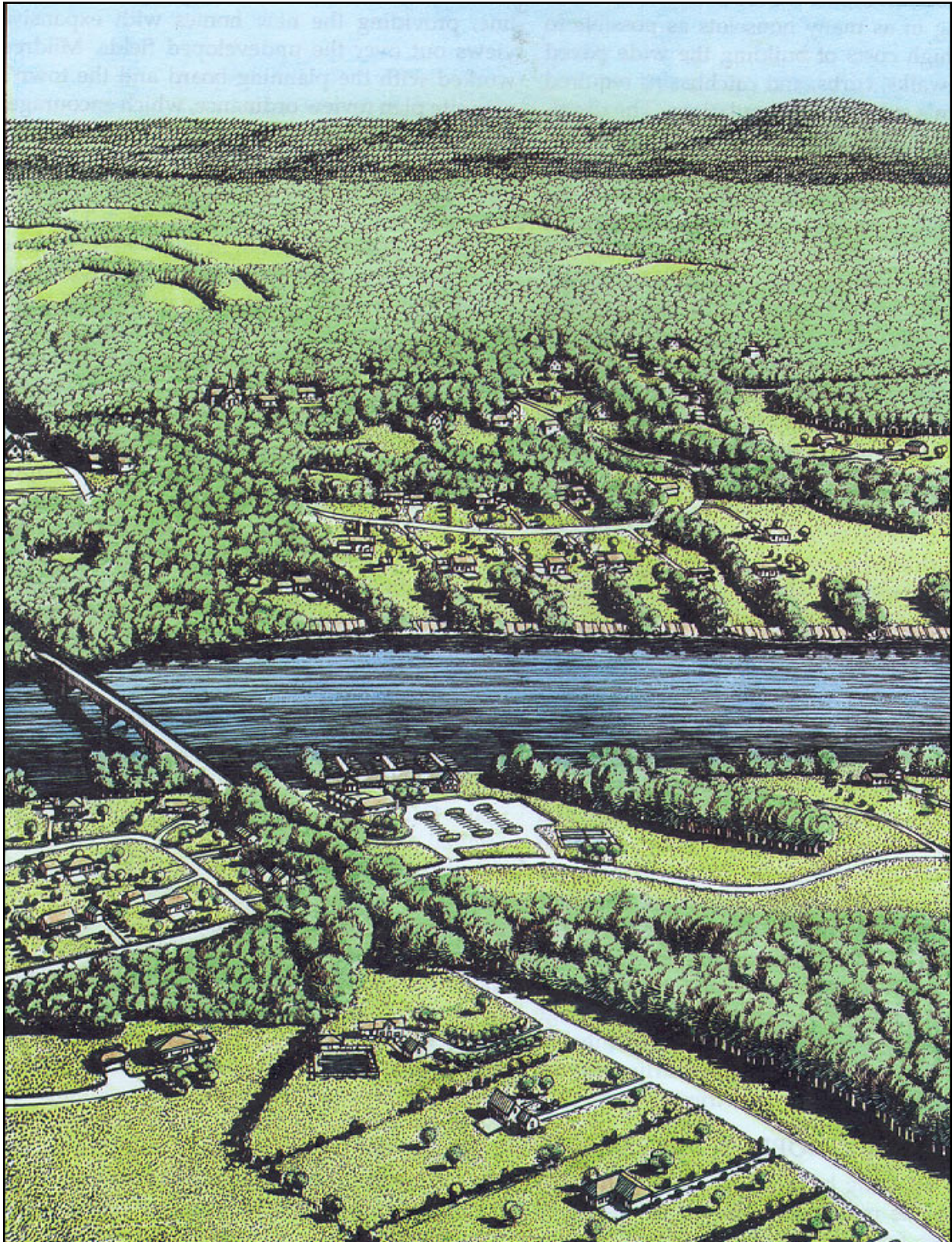
Land so classified is intended to be used for agricultural and related rural uses and is not anticipated or recommended to be developed for any urban-type purpose within the planning period. Goals and Objectives which relate to this are:

FIGURE 5-1
CONVENTIONAL V. CREATIVE DEVELOPMENT CONCEPTS



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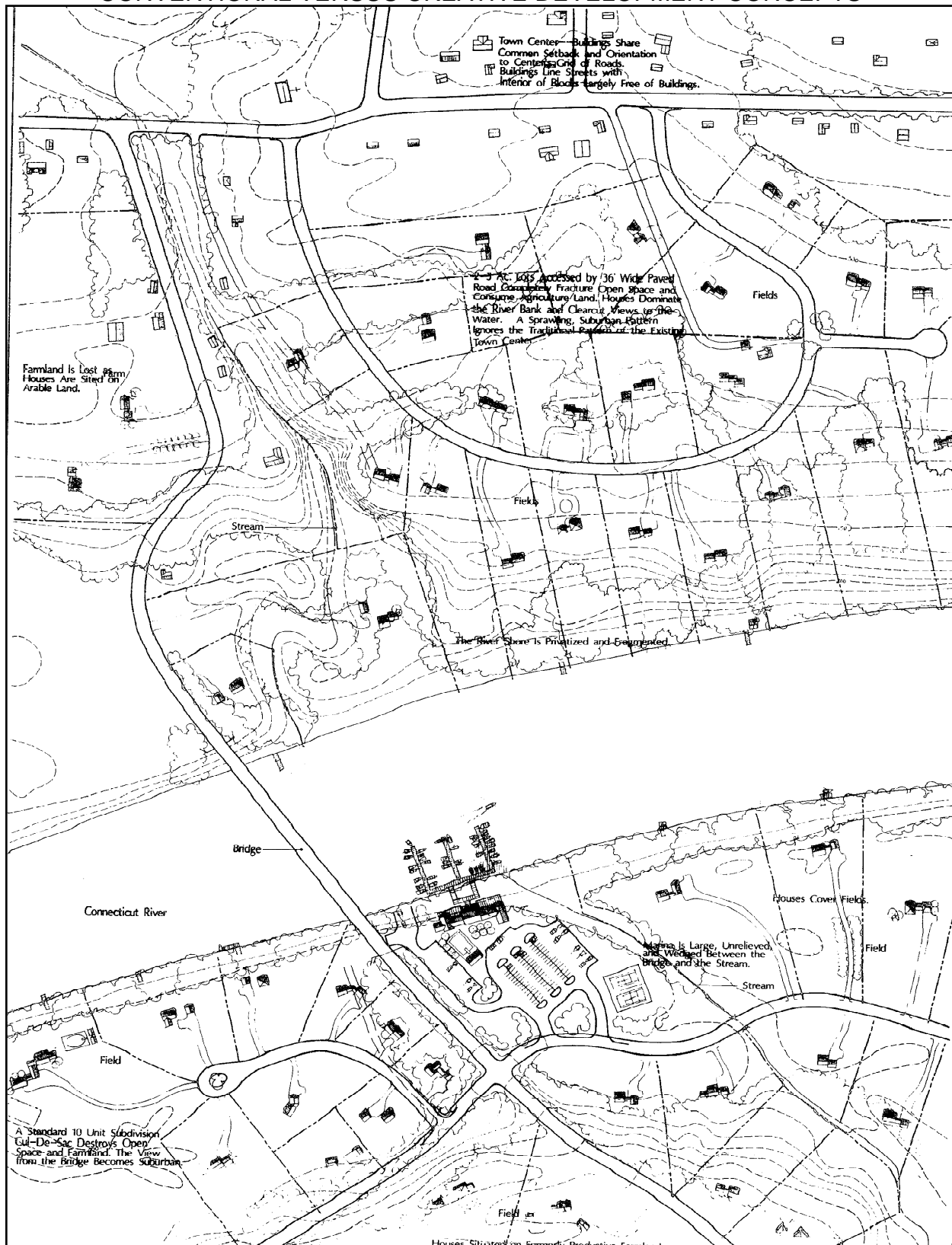
FIGURE 5-2
CONVENTIONAL VERSUS CREATIVE DEVELOPMENT CONCEPTS



CONVENTIONAL DEVELOPMENT

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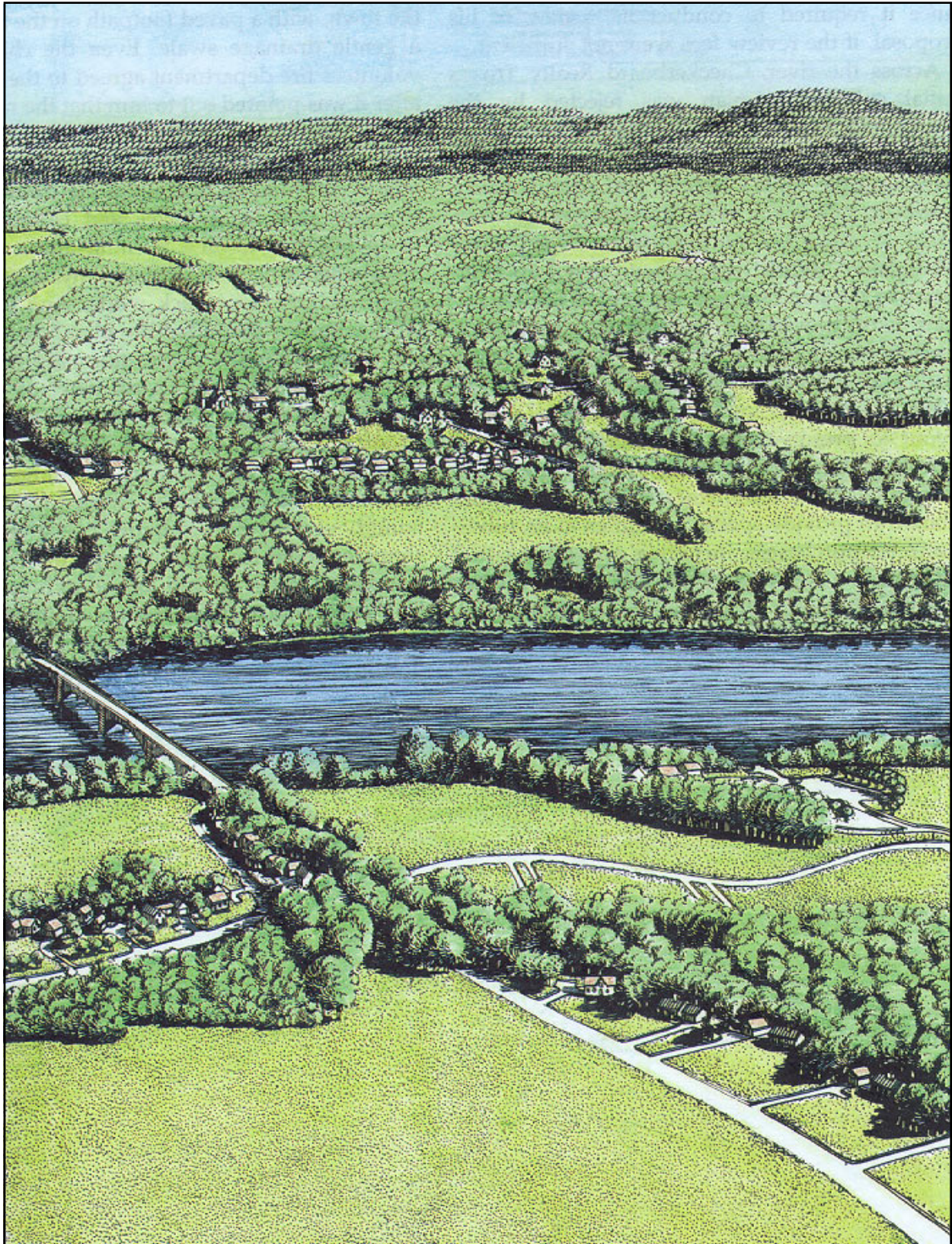
FIGURE 5-2
CONVENTIONAL VERSUS CREATIVE DEVELOPMENT CONCEPTS



CONVENTIONAL DEVELOPMENT

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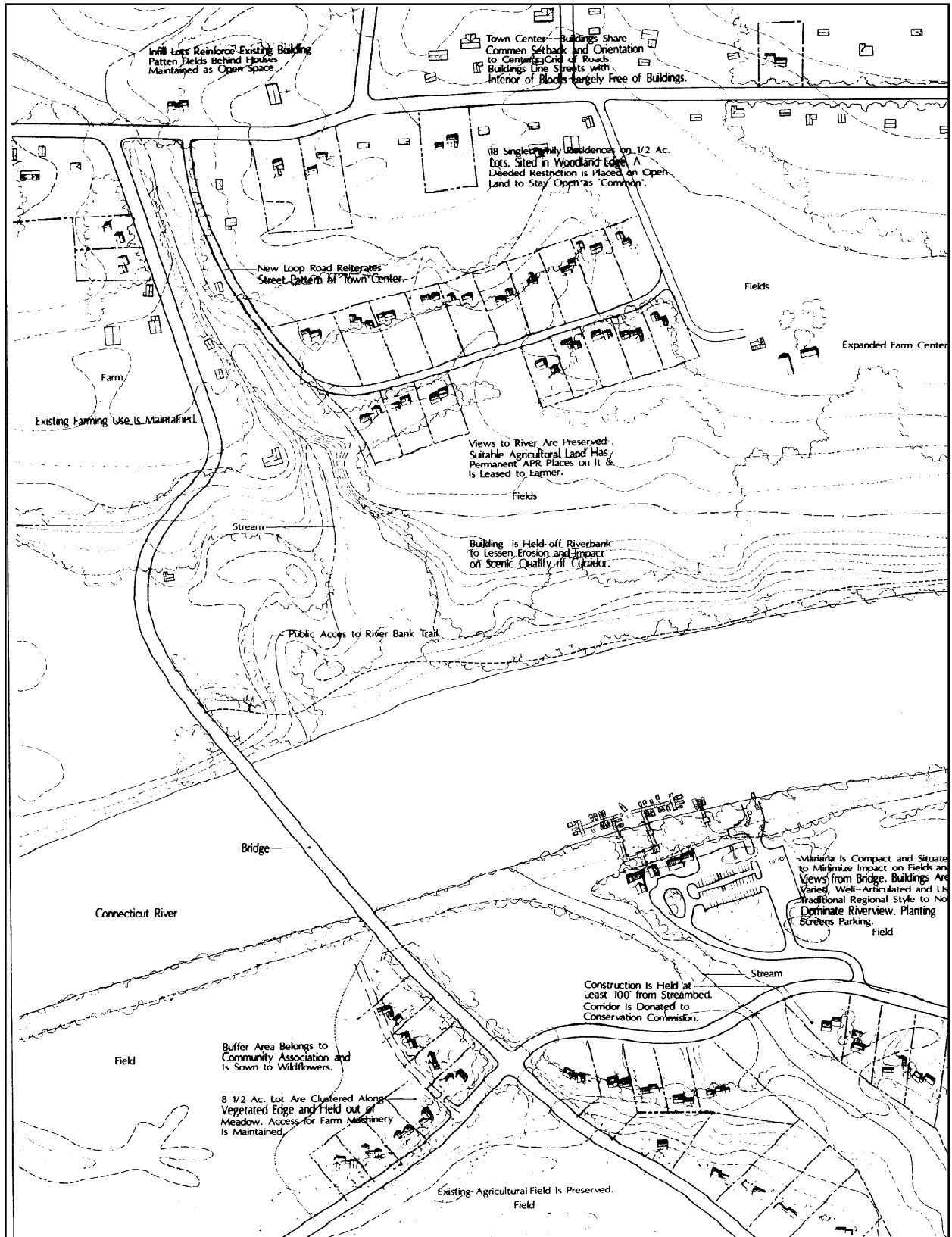
FIGURE 5-2
CONVENTIONAL VERSUS CREATIVE DEVELOPMENT CONCEPTS



CREATIVE DEVELOPMENT CONCEPT

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FIGURE 5-2
CONVENTIONAL VERSUS CREATIVE DEVELOPMENT CONCEPTS



CREATIVE DEVELOPMENT CONCEPT

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- **Goal - Resources and Environment:** *"To ensure the most efficient and reasonable utilization of the area's physical resources while ensuring that any short-term uses of man's environment will be to the long-range benefit of all. ...Effort should also be made to identify and plan for the stabilization of those areas which might be best retained in their rural -like character promoting their value as agricultural resources and/or adequate land reserves for the future."*

This category is not intended to restrict agricultural development or rural-character residential development. It further recognizes the existence of scattered rural commercial uses that serve the surrounding population but which do not comprise areas of concentrated commercial activities. This category is intended to be applied primarily within the Non-Urban Service Area.

PHYSICALLY RESTRICTIVE DEVELOPMENT AREAS

Land so classified is generally characterized by physical conditions which would be severely restrictive to any intensive urban type development (usually those areas subject to periodic flooding or areas containing severe sloping conditions -- 20 percent slopes or greater). Of particular importance are those areas identified which contain slopes of 20 percent or greater coupled with the "Kope" geologic formation. Such areas are particularly susceptible to hillside slippage. Goals and Objectives which relate to this are:

- **Goal - Resources and Environment:** *"To ensure the most efficient and reasonable utilization of the area's physical resources while ensuring that any short - term uses of man's environment will be to the long-range benefit of all. Constant effort should be made to ensure wise utilization or conservation of the area's resources to maximize advantages, simultaneously minimizing any detrimental effects such utilization may cause. Such efforts would encompass a broad range of critical concerns such as: identifying all environmentally sensitive areas and areas of critical concern; planning and scheduling the use or non-use of such areas; ...It should also encompass an effort to preserve, conserve, and enhance unusual manmade projects or natural features, which have some unique historical, architectural, or natural value..."*

Plan recommendations for areas so designated are not intended to imply that such areas should not be developed, but rather that most of these areas will remain undeveloped, and thus, would become an integral part of the natural open landscape of Kenton County. Where development is proposed in such areas, this land use category should alert the developer and regulating bodies to a potential problem which must be solved prior to any construction. Any development of areas designated "Physically Restrictive Development Area" should be a type of use that is compatible with the recommended land use of adjacent areas, unless sound bases can be shown for other land use types. It is further recommended that development of these areas be adequately controlled through local land use regulations (e.g., hillside development controls, flood protection development controls, etc.).

Areas designated "Physically Restrictive Development Areas" exist in abundance throughout Kenton County. A substantial amount of land in the southern portion of the county is characterized by hillsides in excess of 20 percent slopes, and most of the areas along the rivers are subject to periodic flooding.

The Hillside Trust study entitled, "A Hillside Protection Strategy For Greater Cincinnati", which includes Kenton County, identifies those areas which should be preserved in their natural state. Furthermore, the study presents appropriate methods for construction on hillsides and suggested guidelines that may be adopted to implement hillside protection. The NKAPC has recently completed the model zoning ordinance update, which incorporates many of the guidelines contained in this study, for use in Kenton County. Following review with the KC&MP&ZC, it is recommended that individual legislative bodies within Kenton County review and consider the adoption of recommended guidelines for hillside protection. The concepts of sustainable development are applicable as these physically restricted development areas are addressed.

RECREATION AND OPEN SPACE

Land areas so classified are those which should be specifically used for recreation and open space purposes and, as such, should be either in public ownership or under some kind of public control so as to insure their continued use for these types of functions.

Goals and Objectives which relate to this are:

- ***Goal - Recreation and Open Space:*** "To provide basic recreation and open space facilities and programs which are conveniently located and accessible to the population. Effort should be made to provide for recreation and open space facilities which are both region oriented, containing a variety of active and passive recreation pursuits, and neighborhood oriented, which are primarily aimed at satisfying the day-to-day desires and needs of immediately surrounding residents".

Recommendations for recreation and open space proposals are discussed in Chapter VI. Particularly significant during this Plan Update is the increased public awareness for additional recreation and open space land. During the "Town Meeting", held in August of 1995, this issue was ranked as the number one priority. In this Plan Update, more detailed analysis has been presented to quantify park land needs.

Recreation and open space needs are provided by both the public and private sector. Information presented in Chapter VI deals mostly with public parks and recreation services. Private park and recreation facilities do provide a supplement to the recreation and open space inventory within Northern Kentucky. However, too heavy a reliance on private ownership results in several drawbacks to maintaining a reliable and balanced park and recreation system: (1) facilities are likely to be oriented toward those activities that generate income to "pay- their-own-way"; (2) use of the facility is

sometimes limited to "members only"; and (3) there is no assurance that such facilities will always be available to serve the public need.

RESIDENTIAL

Residential densities referred to herein are "net residential densities", meaning exclusive of land to be used for streets and alley rights-of-way and other non-residential uses (e.g., land for schools, parks, necessary utility pump stations and other essential service facilities which use land). It is not the intention of this plan to automatically allow development to occur at the upper end of the density ranges. Rather, the density of development should be controlled by the recommended density range and its interrelationship with the residential development concepts, the availability of recreational facilities and other community facilities, and the existing/recommended transportation network.

The density of development, permitted within a given residential zoning district of a city's zoning ordinance, should be within the broad density ranges identified in this Plan Update.

- ***Goal - Housing - Residential Development:*** *"To provide a variety of housing types and residential development to accommodate different needs and desires of the population. Effort should be made to encourage a variety of residential densities and housing types to meet the needs and desires of a range of family sizes, age groups, and income levels and to ensure that equal opportunity in choice of housing by all elements of the population is provided throughout the region."*

Density is intended to be the major control of residential development. Therefore, concepts such as "Cluster Type Development" and "Planned Unit Development" are strongly encouraged as long as they comply with the recommended densities in the plan. Such concepts promote flexible and innovative design, making the best use of existing land forms, preserving and integrating natural areas into such designs.

A listing of the six residential density categories is as follows:

- Under 2.0 dwelling units per net acre
- 2.1 - 4.0 dwelling units per net acre
- 4.1 - 7.0 dwelling units per net acre
- 7.1 - 14.0 dwelling units per net acre
- 14.1 - 30.0 dwelling units per net acre
- Over 30.0 dwelling units per net acre

The following is a discussion of the recommendations for residential development included within the Land Use Plan Element. The residential plan proposals are described by sector.

Covington Basin Sector (Generally forming the Basin Area of Covington, north of

Banklick Creek) - The residential areas of the Covington Basin Area are presently developed in a mixture of single, two, and multi - family residential dwelling units. Recommendations for residential use within these areas are based largely on a recognition of existing conditions, with anticipation of long-term rehabilitation/restoration of many of these dwelling units. The success of ongoing rehabilitation/restoration programs support this approach (e.g., the Licking/Riverside Restoration Area in northeast Covington; Seminary Square; and Covington Avenue in central Covington).

The recommendation for rehabilitation/restoration of existing housing recognizes: (1) economic conditions which make it more feasible to restore existing housing than to replace it at current market prices; (2) high costs involved in relocating families if such housing was to be acquired with public funds, and the social costs of disrupting neighborhoods; (3) need for housing for low and moderate income families which necessitates utilization of some of the existing housing stock; and (4) desirability of preserving housing with particular architectural or historical significance.

For further information on the Covington sector, refer to the Historic Preservation section presented previously in this Chapter and to information contained in the 1991 Plan Update.

West Covington/Ludlow - Bromley Sector (Area generally bounded by I-75, Devou Park/Southern Railroad, Bromley, and the Ohio River) - In recognition of existing development, most of this sector is recommended to be developed with Single-Family Residential uses at a density of 7.1 - 14.0 dwelling units per net acre. Rehabilitation of existing residential structures, rather than clearance and redevelopment, is recommended for these areas.

As part of the Riverfront West Development Plan and the Ludlow Waterfront Land Use Suitability Study, several areas within this sector are recommended for residential redevelopment. In Covington, the area located along the Ohio River, east of Post Place, is recommended to be redeveloped with low to medium density (4.1 - 5.5 dwelling units per net acre) hillside cluster housing while the area located along the north side of Swain Court, at its intersection with Highway Avenue (State Route 8), is recommended to be redeveloped with medium density (approximately 20 dwelling units per net acre) cluster housing.

There are six areas in Ludlow which are recommended for redevelopment. They are:

- The area located north of Hay Street and east of Carneal Street. This area is recommended to be redeveloped with medium density cluster housing.
- The area located north of Hooper Avenue, west of Kenner Street, which is also recommended to be redeveloped with medium density cluster housing.
- Two areas located on the Ohio River at the foot of Kenner Street and Carneal Street. These areas are recommended for floating cluster housing.

- The area located on the north side of Elm Street (Kentucky Route 8), opposite Deverill Street, and is recommended to be developed for mid-rise cluster housing.
- The area identified as the Ludlow Lagoon. The northern portion of this area is recommended to be developed with low density cluster housing while the southern portion of this area is to be developed with medium density mid-rise housing.

Such development would provide for a different and needed type of housing in the West Covington/Ludlow - Bromley sector and could also take advantage of attractive views along the Ohio River.

Since the 1991 Plan Update, the Bromley Elementary School has been closed by the Kenton County Board of Education. This facility was then sold and has now been converted into 17 units for elderly housing.

Villa Hills - Crescent Springs Sector (Area generally bounded by I-75, I-275, Southern Railroad/Bromley, and the Ohio River) - The Villa Hills area, since the last Plan Update, has been a major growth area for residential development, primarily because of good access, relatively flat land, and availability of a full range of urban services. Development has generally occurred in Single-Family Residential within a density range of 4.1 - 5.0 dwelling units per net acre.

The Villa Hills area is approaching saturation, and only a few areas are available for development. It is recommended that this area continue to be developed primarily with Single-Family Residential uses at a density ranging from 4.1 to 5.5 dwelling units per net acre.

It is recommended that the Crescent Springs area, which is already largely developed, retain its existing housing stock with renovation/redevelopment in key problem areas. Some new single-family and multi-family residential development is also recommended.

Dixie Highway - Interstate Route 75 Corridor Sector (Area bounded generally by Boone County on the west, I-75/Southern Railroad on the northwest, Covington Basin Area on the north, Banklick Creek on the east, and Bullock Pen Creek on the south) - This sector includes the areas of the cities of Edgewood, Fort Wright, Fort Mitchell, Park Hills, Kenton Vale, Lakeside Park, Crestview Hills, Crescent Park, and much of the area of the cities of Erlanger and Elsmere. Much of this area has already been developed in Single, Two, and Multi-Family Residential use. Since the 1991 Plan Update, a significant amount of additional single-family residential infilling has occurred, particularly in the Edgewood and Crestview Hills areas. Residential land use recommendations for this general area incorporate almost the full range of residential densities - a reflection of existing conditions within the area. Some undeveloped areas along Dixie Highway and I-75 are recommended to be

developed for high density residential use, consistent with the recommendations of the 1986 Comprehensive Plan Update. This recommendation takes advantage of the good regional access available to these areas via I-75, I-275, and the possibility of some form of rapid transit along the I-75 corridor in the long-range future - an issue to be further studied by the Ohio-Kentucky-Indiana Regional Council of Governments.

In the Ft. Mitchell area, the Kentucky Transportation Cabinet has begun a project to make major improvements to the I-71/75 - Dixie Highway interchange currently scheduled for construction in 1998. These improvements will significantly affect the northeast quadrant of this interchange, which is currently being used for residential development. As a result, this area could have the potential for redevelopment, but only under a well coordinated design ensuring that such effort would not occur in a piecemeal approach.

The Edgewood Area has continued to be one of the major residential growth areas within Northern Kentucky since the 1991 Plan Update. Much of this growth has been in the form of single - family residential development ranging from 3.0 - 5.0 dwelling units per net acre. This area is expected to continue to be a growth area due to the availability of urban services, particularly centralized water and sanitary sewer facilities, good regional access, close proximity to areas recommended for Industrial use, and development of the Thomas More Research and Office Park and the Saint Elizabeth Hospital Complex. This Plan Update anticipates that most of the Edgewood/Crestview Hills area will be approaching full development soon due to the limited availability of vacant land within this area.

New single-family residential development within this area is recommended to take place within a range of 2.1 - 5.5 dwelling units per net acre as logical extensions of existing development and infill of already planned subdivision development.

Some of the area generally located south of I-275 and west of Horsebranch Road, containing approximately 90 acres, designated for office use in the 1991 Plan Update, has been identified for residential uses at a density of 4.1 to 7.0 dwelling units per net acre to reflect planned and anticipated development.

Other specific recommendations within this sector, as part of this plan update, are as follows:

- The area located along the southeast side of Hulbert Avenue, across from Silverlake Avenue, is recommended for residential development at 4.1 to 7.0 dwelling units per net acre.
- The area located along the southwest side of Stevenson Road, across from Rainbow Terrace, is recommended to be changed from residential development at 4.1 to 7.0 and 14.1 to 30.0 dwelling units per net acre to 4.1 to 7.0 dwelling units per net acre.

South Erlanger/Elsmere - North Independence Sector (Generally bounded by Bullock Pen Creek, Banklick Creek, and the Boone/Kenton County line) - This

sector includes the North Independence/old Ridgeview Heights Area and the South Erlanger/Elsmere area and is recommended to be developed at a density range of 3.1 to 20.0 dwelling units per net acre. Development of high density residential use within this area is needed to provide an adequate and varied housing supply to meet the needs of a recommended major industrial center located along Industrial Road, west of Turkeyfoot. This recommendation is in accordance with the following:

- **Goal - Employment:** *To provide for an adequate amount of well located industrial development to meet anticipated industrial employment needs. "Effort should be made to locate areas planned for industrial development so as to shorten the work trip from the living areas of the resident labor force and reduce energy consumption..."*

This area is anticipated to continue as a major growth area during the planning period due to the availability of water and sanitary sewer facilities and anticipated improvements to Turkeyfoot Road and Kentucky Route 17. An area in the general vicinity of Turkeyfoot Road and Industrial Road is recommended to be developed for residential use at a density of 14.1 - 30.0 dwelling units per net acre. Proposed realignment and widening of Turkeyfoot Road at the intersection of Industrial Road, will change the orientation of several properties in this area. For example, some properties now located on the east side of Turkeyfoot Road, which are identified for residential development, will be on the west side adjacent to areas currently identified for commercial land use. This Plan Update does not recommend land use changes within this vicinity until it is certain about the timing and exact location of the Turkeyfoot Road realignment project. Upon confirmation of the timing and location of this project, land use changes to commercial and/or higher density residential land use, will be further evaluated, along with proper access control to ensure that new development is properly coordinated with roadway improvements.

Taylor Mill - South Covington Sector (Generally bounded by Banklick Creek on the north and west, Licking River on the east, and the Independence area and the Non-Urban Service boundary on the south) - Substantial residential development has occurred within this sector since the last Plan Update. It is anticipated that this area will continue as a major growth area during the planning period due to the availability and expansion of water and sanitary sewer service to this sector. Planned relocation and widening of a new Kentucky Route 17 connection, east of the existing route south through the Independence area, will provide better access to residential areas developing in the South Covington/Independence area. In Taylor Mill, there is a critical need to improve Kentucky Route 16 (Taylor Mill Road) to support the concentration of residential development occurring in the area since the last Plan Update.

Independence - Cherokee Sector (Bounded by Banklick Creek on the west, Taylor Mill/South Covington sector on the north, and the Non-Urban Service boundary on the south and southeast) - Since the 1991 Plan Update, this area has experienced substantial growth and will continue as a major growth area. Several new residential subdivisions with supporting commercial development are under construction. Most

development is occurring along Kentucky Route 17, both north and south of the Independence Courthouse area. As previously mentioned, planned relocation of Kentucky Route 17 (a new route from north of Hands Pike south to the Nicholson area) will further enhance this area for development. Due to planned road improvements and recent completion of sanitary sewerage extensions within this area, it is anticipated that this portion of central Kenton County will continue to be a major growth area during the planning period. Additionally, two new schools are being constructed north of Pelly Road, which will also further enhance this area for residential development.

To reflect planned or anticipated development, specific recommendations within this sector, are as follows:

- The area located at the north side of Shaw Road (Kentucky Route 536), previously identified for residential development at 2.1 to 4.0 dwelling units per net acre, be changed to residential development at 14.1 to 30.0 dwelling units per net acre.
- The area located along the east side of Madison Pike, across from Locust Lane, previously identified for Community Facilities - Recreation and Open Space and residential development at 2.1 to 4.0 dwelling units per net acre be changed to residential development at 4.1 to 7.0 dwelling units per net acre.
- The area located at the intersection of Independence Road and Julia Meadow, previously identified for Community Facilities - Recreation and Open Space and residential development at 2.1 to 4.0 dwelling units per net acre, be changed to residential development at 4.1 to 7.0 dwelling units per net acre.

Southern Kenton County Sector (Area generally south of State Route 16) - The southern Kenton County area is identified as Non - Urban Service Area. Because land located within the Non - Urban Service Area is not anticipated or planned to be provided with the full range of urban services during the planning period, it is recommended to be identified for agricultural and low density rural residential uses.

Residential development within this area has led to the need to better address residential land use issues in the Southern Kenton County Sector. These issues have been previously discussed in this Chapter. Proposed new techniques for land development are being recommended to address these issues. While encouraging innovative land design and use of new technology for sewerage disposal, etc., this Plan Update continues to recommend the overall low density identified for this sector.

Residential Recommendations - A Summary

The foregoing descriptions identify land within the Urban Service Area recommended to be used for residential development at a variety of densities, and land within the Non-Urban Service Area recommended to be utilized for agricultural or very low density rural residential use. It is important to note that the amount of undeveloped

land recommended for residential use in the Urban Service Area is anticipated to be more than expected to be needed during the planning period. Thus, it is evident that development within the "Urban Service Area" can, and should, be phased to make the most efficient use of the existing infrastructure (e.g., streets, utilities, community facilities) and to provide for orderly growth. Proper phasing of urban development will also contribute to efforts to conserve energy and enhance air quality -- again realizing sustainable development objectives (e.g., shortening trips to work, shopping, etc.) while striving for the most efficient use of taxpayer's dollars (e.g., recognizing maximum utilization of major capital improvements such as extensions of primary water and sanitary sewer facilities).

This phasing plan continues to recommend that new development first take place in the northern portion of Kenton County (e.g., Villa Hills, Edgewood, Taylor Mill/ South Covington, South Erlanger, North Independence, etc.) and those areas close to major employment centers. In addition to their good location (e.g., close proximity to major community and shopping facilities, employment centers, downtown Covington / Cincinnati, major transportation routes, etc.), many of these areas are so recommended because several small pockets of undeveloped land are still available and are already provided with the full range of urban services. If new development first occurs in these areas, including infill in already planned subdivisions, it would aid in reducing the length of automobile trips to work, shopping, etc., create concentrated areas of development which can more easily be served with a mass transportation system, and reduce actual costs of development to the public (i.e., there would be minimum costs required to expand primary water and sewer facilities, police and fire protection, etc.). Rehabilitation/renovation of existing housing stock and use of existing vacant parcels within the older urban area are also important elements of this Plan Update.

When development in these areas reaches saturation, which is anticipated to occur during this Plan Update period, the recommended phasing is for new development to proceed as a logical extension of these areas. Such a phasing would enable gradual extension of the required urban services only as necessitated by such development. In summary, timing, direction, and extent of new development are most critical parts of the plan's recommendations for future residential development, and good regulatory measures, adequately enforced, will be necessary to ensure such a phasing.

INDUSTRIAL

Land so classified is representative of those areas which are recommended: to be continued to be used; to be newly developed; or to be held in reserve; for industrial purposes. The 1972 Comprehensive Plan identified a number of locations which were recommended for "Industrial" use. The 1981, 1986 and 1991 Plan Updates, consistent with the 1972 Plan, recommended industrial locations based upon advantageous characteristics any given area exhibits for such development and without consideration to arbitrary jurisdictional limitations. Goals and Objectives which relate to this are:

- **Goal - Employment:** *To provide for an adequate amount of well located industrial development to meet anticipated industrial employment needs. "Effort should be made to locate areas planned for industrial development so as to shorten the work trip ---(and) areas which exhibit particularly desirable characteristics for industrial development should be identified, planned, and regulated for such use without the consideration of arbitrary jurisdictional limitations."*
- **Goal - Employment:** *"Effort should be made to ensure that industrial areas are afforded the same measure of protection against the intrusion of incompatible land uses provided to other land use types. Conversely, significant effort should be made to ensure protection to areas surrounding employment centers. Elimination of undesirable emission or intrusions, which may result from the existence of industry, will be necessary." Re: Goal - Public Health -- To provide an effective comprehensive program to prevent sickness and disease. "An ongoing effort should be made to provide an effective program of all forms of pollution control."*

During Focus Group meetings, several issues were identified which further elaborate on industrial development needs in Kenton County. In addition to the need to reserve land suitable for industrial development (e.g., with suitable topography, all types of transportation access, etc.), it is important to protect this land from encroachment by other incompatible land uses. Such incompatible land uses, primarily residential land uses, tend to develop at a much more rapid pace. Once in place, development of adjoining or nearby industrial land becomes undesirable for new residents. This factor is becoming more crucial as land areas in Kenton County suitable for industrial development become more scarce.

Scarcity of industrial land, and the importance of industrial development and employment to the economic base, point to the need to manage industrial development differently than in the past. Businesses and industries that employ more persons per acre of operations should be sought versus those types that use large amounts of land resources, yet employ relatively few workers. Related to this issue is the need to provide maximum flexibility through increased use of performance standards for determining location. Current practice, within most local zoning ordinances, is to utilize specific lists of permitted uses. These lists can influence the search for location as potential industries must either exactly fit the list or determine if their operations are similar to other uses that are included. Performance standards are a good tool to evaluate operations against. Furthermore, any industry that can comply with locally adopted performance standards would be compatible with the larger surrounding area and, thus, should be approved for location.

This Plan Update recommends that all industrial districts within zoning ordinances be reviewed and evaluated with the intent of moving away from lists of specific uses within industrial zones, to performance oriented standards which can be coordinated on an area-wide basis.

The 1986 and 1991 Plan Updates listed and described areas recommended for industrial use. These areas have remained virtually unchanged for this Plan Update. Below is a list of these areas with approximate number of acres. Those detailed descriptions are included in the 1991 Plan Update.

- Ludlow Industrial Area - Land along the Southern Railroad and the Ludlow Lagoon area (approximately 110 acres).
- I-75/I-275 Industrial Area - The area within the general vicinity of the I-275 and I-75 interchange (approximately 700 acres).
- Northern Kentucky Industrial Foundation Park- The area located along both the north and south sides of Industrial Road (approximately 745 acres).
- Sohio Industrial Area - This area is located off Winston Avenue (Kentucky State Route 16) in the South Covington Area contains approximately 160 acres. The construction of Howard Litzler Road connecting Kentucky Route 17 with Winston Avenue, constructed since the 1991 Plan Update, provides additional access to this area.
- Central Covington Industrial Area - This area located in the central portion of the city of Covington, generally extends along the C&O Railroad from Eighth Street to an area south of 24th Street, and contains approximately 100 acres.
- I-275/Madison Pike Industrial Area - This area is generally located along Madison Pike (Kentucky State Route 17) in the vicinity of the I-275 interchange and extends along the east side of Madison Pike from Kyles Lane to just south of I-275 and contains approximately 255 acres. This area includes the Madison Pike/Kyles Lane Industrial Area described in the 1991 Plan Update.
- Southern Kenton County Industrial Area - Approximately 320 acres are recommended to be continued for industrial use along U.S. 25, extending southeast from the Walton area into Kenton County.
- Madison Pike Corridor - This area, which contains approximately 180 acres, extends from the area identified as the I-275/Madison Pike Industrial Area, to a point approximately midway between Holds Branch Road and Hands Pike.
- Upper Banklick Creek Industrial Area - The proposed Upper Banklick Creek Industrial Area is part of a larger plateau extending into Kenton County from Boone County, along Dixie Highway near the Richwood interchange. Within Kenton County, approximately 1,700 acres have been designated for Industrial use, excluding areas of steep slope conditions.
- Bromley Industrial Area - This approximate 25 acre area is located along State Route 8.

- Thirty-Fifth Street Industrial Area - This approximate 20 acre area is located along Thirty - Fifth Street, adjacent to and northwest of the Sohio Industrial Area.
- Old Madison Pike Industrial Area - An approximate 45 acre area located along both sides of Old Madison Pike, southwest of State Route 17, is recommended for industrial use.
- Decoursey Pike/Locust Pike Industrial Area - An approximate 430 acre area located between Decoursey Pike/Locust Pike and the Licking River is recommended for industrial use.

New Areas Recommended For Industrial Use

New areas recommended for industrial use since the 1991 Plan Update contain only a small number of acres. Land added to existing areas designated for industrial land use also accounts for only a small increase in land area. This is due in part to the lack of new land suitable for industrial development. This fact emphasizes the issues previously discussed regarding the importance of protecting land designated for industrial development and maximizing the employment and economic base within these areas.

The only significant new area designated in this Plan Update is located in the city of Elsmere along Garvey Avenue, containing approximately 150 acres. Access to this area is primarily from Buffington Station Road and Garvey Avenue, which needs improvement to handle traffic generated by industrial land use.

Areas Deleted For Industrial Use

This Plan Update recommends only two areas previously designated for industrial uses be deleted from the Plan Update and identified for other land uses. Areas to be deleted are within the city of Fort Wright, where land along the east side of Madison Pike (Kentucky State Route 17) has now been identified for commercial-retail/service and in the Upper Bank Lick Creek Industrial Area, north of Maher Road, where approximately 600 acres has been re-designated for residential development .

Industrial Recommendations - A Summary

Now, as in the previous Plan Update, one of the most important aspects of identifying areas for industrial development is to ensure that such areas are adequately regulated to prevent intrusion of incompatible land uses. Areas identified must offer the characteristics required for industrial development such as: relatively level topography; access to rail, water and/or interstate highways; and, with utilities either on-site, nearby or within reasonable distance to allow for easy extension to the site.

Planning for future industrial development within Kenton County has been undertaken

as an area-wide effort, with no particular attempt to allocate a certain amount of industry to each locale. Nearly 5,400 acres are identified for industrial purposes in this Plan Update. Approximately 3,900 acres are available for development or redevelopment. Since the last Plan Update, approximately 200 acres of land identified for industrial use has been consumed. As previously mentioned, land which can be readily used for industrial development, within the Northern Kentucky Area, is at a premium, and the intent of the Plan Update has been to identify those areas which contain such characteristics, so that beyond the year 2000 there will still be adequate land areas suitable for such development.

Planning for the “Long Range Future” and “Today Zoning” can sometimes be a difficult concept to appreciate. This Comprehensive Plan Update is a plan for the long range future of Kenton County and its relationship to Northern Kentucky and the general metropolitan region in which it is located. Zoning regulations are adopted by the legislative bodies of the various cities, and the fiscal court for the unincorporated part of the county, only after such a plan is completed. These zoning regulations designate how land can be used, or not used, today.

In some cases, such as the area described herein as the “Upper Banklick Creek Industrial Area”, the long-range plan map will show it to be used for industrial purposes sometime within the next twenty years and beyond, while the zoning map designation may show it as some category of residential or agricultural. The implication might be that “timing” is the important consideration and that to zone the total area for industrial uses now may not be practical or in the best interests of the residents living within or immediately adjacent to the area.

Some concern has been shown by the local planning commissions that such differential designations on the “Planning” map versus the “Zoning” map may be confusing and/or misleading. It is recommended that the appropriate legislative body seriously consider one of the following actions when this condition occurs: take action to zone the property so that it is in direct conformance with the land use map; or use some form of zoning designation which notifies the owner, or other interested parties, of the “today” zoning designation and that further research is necessary to thoroughly understand the implications.

COMMERCIAL

Land areas so classified are those which the plan recommends to be used primarily for commercial activities, providing goods and services to the area's population. This category has been divided into a number of subcategories which reflect the various types of commercial activities which serve the residents of Northern Kentucky and other parts of the larger metropolitan region. Goals and objectives which relate to commercial land use are:

- ***Goal - Goods and Services:*** *To locate and design centers providing goods and services so as to maximize consumer safety and convenience while*

minimizing any adverse environmental effects. "Centers providing goods and services should be conveniently accessible to the population. Different types of centers should be provided which serve the unique needs and desires of different types of consumers. Examples are as follows: centers oriented to serving immediately surrounding residents with daily convenience needs, centers intended to serve the transient public, major commercial centers offering both convenience and comparison goods; and services to customers from a large service area. In all cases, design of new or redeveloped facilities, providing goods and services, should contain adequate off-street parking facilities, reasonable control of ingress and egress, landscaping, reasonable separation of vehicular and pedestrian traffic, etc. Such centers should be located and designed so as to minimize any adverse environmental effects."

The subcategories created and used herein are considered to be most representative of what this Plan Update is intending by its recommendations. Definitions and locational recommendations for each of these subcategories are as follows:

Retail/Service

Land so classified is intended to identify commercial concentrations (inclusive of areas recommended for expansion) which provide a wide range of retail sales and service activities, including comparison and convenience type goods.

Examples of such concentrations include: the commercial core areas of older cities (i.e., central business districts) and existing shopping center developments -- these areas may be neighborhood, community, or regional facilities; and areas located in the immediate vicinity of freeway interchanges providing facilities oriented to serving the traveling public (i.e., overnight lodging facilities, service stations, restaurants, etc.).

Those areas which are so classified are located within the "Urban Service Area" and are intended to provide goods and services to meet the needs of surrounding existing and recommended additional urban development. While there are several areas identified for "Retail/Service", the following is a list of the major facilities. More detailed descriptions of each facility developed prior to 1991 can be found in the 1991 Plan Update. In addition, [Table 5-2](#) provides a summary of shopping center characteristics.

- Covington Central Business District - Comprises the area extending generally along both sides of Madison Avenue, from Fourth Street to Tenth Street, and from Madison Avenue to the C&O Railroad, between Pike Street and Eighth Street. It is recommended that the central business district of Covington continue as a major commercial concentration. This area is anticipated to provide a wide range of business and service functions, including uses oriented

TABLE 5 - 2
SHOPPING CENTER CHARACTERISTICS

CHARACTERISTICS ⁽¹⁾	NEIGHBORHOOD / CONVENIENCE SHOPPING CENTER	NEIGHBORHOOD / COMMUNITY SHOPPING CENTER	REGIONAL SHOPPING CENTER
Service Orientation	Day - to - Day Convenience Goods and Services	Weekly or Biweekly Goods and Services and Comparison Goods	Greater Depth of Comparison Goods
Size of Site (typical range)	1 - 3 Acres	5 - 15 Acres	30 - 125 Acres
Population Required to Support Center (typical range)	1,500 - 6,000	20,000 - 75,000	150,000 or More
Gross Leasable Area (typical range)	6,000 - 30,000 Square Feet	40,000 - 150,000 Square Feet	300,000 - 1,000,000 Square Feet
Radius of Primary Service Area (typical range)	1/2 - 1 Mile	1 - 2 Miles	6 Miles
Transportation Facilities Required to Serve Center	Pedestrian Access; Collector Street; Transit	Arterial Street or Freeway; Transit	Freeway; Transit

NOTE: Some shopping centers may exhibit characteristics of more than one type of center due to locational factors, unusual marketing techniques of a particular store, etc.

(1) Characteristics indicate typical conditions and do not exclude the possibility that some centers are built outside of the range listed in the table. Due to the varied range in typical size and support population for a neighborhood/convenience center and its intended function as a "convenient" facility, the identification of the need for a proposed center within a general vicinity may be satisfied by one larger center or two small centers.

SOURCE: Inventory of shopping centers in Northern Kentucky and the Greater Cincinnati Area and analysis of comparison with other available authorities on shopping centers.

PREPARED BY: Northern Kentucky Area Planning Commission.

to providing comparison and convenience shopping. The areas around this district, which are recommended for residential, office, and tourist oriented development, are encouraged to provide a strong base of support for this area.

- Madison Pike Commercial Corridor - This area extends along both sides of Madison Avenue, from Twelfth Street to Wallace Avenue, and provides for a variety of retail and service oriented businesses. It is recommended that this area have its own identity and be upgraded to better serve the commercial needs of the residents within the vicinity of this commercial corridor. Madison Avenue needs to be widened and upgraded (remove on-street parking) to provide better transportation access to this area.
- Latonia Business District - Located along Winston Avenue, between Daniels Street and Fortieth Street, has long been a commercial concentration. It is recommended that this area continue to serve the commercial needs of area residents and that development/redevelopment within this area be consistent with recommendations contained within the "Latonia Business District Improvement Plan" prepared by the NKAPC.
- Dixie Highway Commercial Corridor - Located along Dixie Highway, between I-275 and the Boone Kenton County line, within the cities of Erlanger, Elsmere, Edgewood, and Crestview Hills, this commercial concentration contains a wide variety of retail and service uses. It is recommended that this area continue in such a manner. However, to provide increased accessibility and safety, a major emphasis needs to be placed upon providing coordinated off-street parking and access between the existing and newly constructed businesses.
- Regional Shopping Centers - Kenton County, and the Northern Kentucky Area, are served by two regional shopping center facilities -- Crestview Hills Mall and Florence Mall. The Crestview Hills Mall, which is located in the southeast quadrant of the I-275/Dixie Highway interchange, containing approximately 500,000 square feet of gross leasable area, was constructed prior to the 1981 Plan Update and continues to be designated for commercial use in this Plan Update. The Florence Mall, which is located in Boone County, contains in excess of 1,000,000 square feet of gross leasable area. These facilities are oriented to serving residents of Campbell, Kenton, and Boone Counties in Kentucky, and, to some extent, the entire metropolitan region.
- Neighborhood/Community Shopping Centers - Nine commercial concentrations in Kenton County, which function as Neighborhood/Community Shopping Centers, continue to be designated for commercial use in this Plan Update. The majority of these centers are structured to provide for a major discount store and/or a major food store as the prime tenant.

Locations of the Neighborhood/Community Shopping Centers are as follows:

- Latonia Plaza - adjacent to Winston Avenue (Kentucky Route 16), south

- of Decoursey Pike, Covington;
 - Fort Wright Plaza (formerly Zayre Discount Center) - east side of Dixie Highway north of I-75, Fort Wright (site was redeveloped in 1995/1996);
 - Expressway Plaza - west side of Dixie Highway south of I-75, Fort Mitchell;
 - Fort Mitchell Business District - Dixie Highway, Orphanage Road, and Buttermilk Pike, Fort Mitchell;
 - Heritage International/K-Mart/All About Sports/Silver Lake - adjacent to Dixie Highway, south of Dudley Pike, Edgewood and Erlanger;
 - Cherokee Shopping Center - west side of Taylor Mill Road south of Cox Road, Independence;
 - Hands Pike Plaza - Madison Pike and Hands Road, Covington; Proposed improvements to Kentucky State Route 17 (Madison Pike) will include realignment of the intersection with Hands Pike which will significantly alter this site. In order to continue to serve the area with neighborhood/community shopping service, this plan update designates additional land on the west side of Madison Pike in the city of Erlanger as commercial - retail/service uses.
 - Kentucky Centre - Taylor Mill Road and I-275, Taylor Mill; and
 - Buttermilk Square/Buttermilk Crossing/Buttermilk Place - Buttermilk Pike and I-75, Fort Mitchell and Crescent Springs.
- Neighborhood/Convenience - Shopping Centers - Areas identified for "Retail/Service", which function as Neighborhood/Convenience Shopping Centers, are recommended to be primarily oriented to serving a local service population with day-to-day type shopping needs and services. A number of neighborhood/convenience shopping centers have been identified in Northern Kentucky, a sampling of which are listed as follows. A number of other smaller centers also serve this basic function and are scattered throughout the region.

Those areas shown on the Land Use Plan are as follows:

- Beechgrove Center - Richardson Road, Independence;
- Ameristop Food Mart - Erlanger Road, Erlanger;
- Ameristop Food Mart and vicinity - Taylor Mill Road, Oak Ridge Area;
- Dairy Mart Plaza - Stevenson Road, Erlanger;
- Tower Hill Plaza - Dixie Highway, Fort Wright;
- Crestville Center - Buttermilk Pike, Crescent Springs; and

In addition to the shopping center type of facilities, a number of urban concentrations comprised of commercial development not designed as a "shopping center", are anticipated to play a major part in meeting the day-to-day needs of the Northern Kentucky Area. These concentrations are generally identified within the older areas of Northern Kentucky, representing the small central business districts of cities such as Ludlow, Independence, and various neighborhoods within the city of Covington (e.g., areas along Madison Avenue). Such concentrations are characterized by a lack of adequate off-street parking.

The Plan Update anticipates and recommends retention of these concentrations with the recommendation that as development/redevelopment takes place, adequate off - street parking and coordination between such areas be provided whenever feasible. Neighborhood "corner markets", as mentioned previously (see Historic Preservation section), also provide much needed day-to-day convenience shopping for nearby residents.

- Highway Interchange Areas - These land areas reflect existing or recommended areas for commercial activities, oriented to serving the traveling public. These areas are intended to include such uses as: overnight lodging facilities, service stations, restaurants, and related services. These areas are intended to be located in the immediate vicinity of freeway interchanges. The most obvious examples are in the vicinity of the interchanges of I-75 with: Fourth and Fifth Streets, and 12th Street in Covington; Kyles Lane, Dixie Highway, Buttermilk Pike, and Commonwealth Avenue (Donaldson Road); and the interchange of I-275 with Madison Pike.

The area generally bounded by I-75, Buttermilk Pike, and the CSX Railroad is of special importance. This area is highly congested and experiencing rapid development/redevelopment. It is important that this area be evaluated and necessarily regulated to provide for coordinated development and the proper separation of land uses.

The interchange at Fourth and Fifth Streets with I-75 continues to be identified within this Plan Update as having excellent potential for some related commercial/retail uses, serving the traveling public and the surrounding neighborhood areas.

Proposed Shopping Centers/Areas

- Regional Shopping Centers - Neither the existing nor the projected population of the Northern Kentucky Area warrant development of additional regionally oriented shopping center facilities, particularly when considered in light of the other numerous regional facilities within the Greater Cincinnati Area. Therefore, in keeping with the Goals and Objectives referenced here, this Plan Update does not recommend additional regional shopping centers.
 - ***Goal - Goods and Service:*** *To ensure that the amount and location of facilities providing goods and services is based on need. "Effort should be made to determine the amount and location of facilities providing goods and services, primarily on the basis of what can be supported..."*
- Neighborhood/Community Shopping Centers - The Comprehensive Plan Update recommends that no additional Neighborhood/Community Shopping Centers be constructed within the planning period other than those currently being developed or those which may be enlarged from from neighborhood

/convenience centers. This recommendation is based upon determination that the location and service areas of existing neighborhood/community shopping facilities within Northern Kentucky are sufficient, and that the anticipated population of the area within the planning period does not indicate a need for additional centers.

A new neighborhood/community shopping center is currently being developed at the northwest corner of Madison Pike and Shaw Road. This center will serve the central Independence and south Kenton County area.

- Neighborhood Convenience Shopping Centers - Several new neighborhood/convenience oriented shopping facilities identified in the 1991 Plan Update to be located within Kenton County in an effort to provide for the day-to-day needs of the area are also recommended in this Plan Update. These facilities, described below, are intended to accomplish the following:
 - ***Goal - Goods and Services:*** *To locate and design centers providing goods and services so as to maximize consumer safety and convenience while minimizing any adverse environmental effects. "Centers providing goods and services should be conveniently accessible to the population. Different types of centers should be provided which serve the unique needs and desires of different type of consumers. Examples are as follows: centers oriented to serving immediately surrounding residents with daily convenience needs, centers intended to serve the transient public, major commercial centers offering both convenience and comparison goods; and services to customers from a large service area. ...Such centers should be located and designed so as to minimize any adverse environmental effect."*

The plan recommends new centers be generally located as follows:

- Along the west side of Madison Pike, between Seventeenth and Eighteenth Streets, in Covington. Prior to this Plan Update, this area was occupied by an industrial facility. That facility has since been demolished. This area has direct access to Madison Pike, an arterial street, and is well located to provide additional commercial services to the residents within the Wallace Woods and Austinburg neighborhoods.
- Along the east side of Thomas More Parkway, between an area north of Medical Village Drive and the Northern Kentucky Health Occupations Center. This area is currently identified for "Community Facilities - Other Community Facilities - Health Care". With the construction of Thomas More Centre, the expansion of Saint Elizabeth Hospital, and the growth of the Crestview Hills/Edgewood area, a commercial concentration serving the day-to-day needs is warranted. It is recommended that this commercial area be strictly limited to those uses which will provide

convenient goods and services to both the daytime population of the area and the residents of the area.

This Plan Update also identifies an area located at the northwest corner of Thomas More Parkway and Dudley Road for retail/service uses.

- A new neighborhood/convenience center, constructed since the 1991 Plan Update, is located at the southwest corner of Industrial Road and Turkeyfoot Road in Independence. Improvements to Turkeyfoot Road may provide opportunity for expansion of this area, which may then expand its services and be reclassified as a neighborhood/community shopping center.
- An area along Madison Pike (Kentucky State Route 17), extending from Kyles Lane on the north to I-275 including an area along Orphanage Road, is recommended to develop into a combination of neighborhood convenience uses and highway oriented commercial uses.
- An area located at the intersection of Pelly Road and Madison Pike is recommended to be developed as a neighborhood convenience shopping area providing convenience type goods and services. New residential development within the vicinity provides the basis for development of this area.
- The area located at the intersection of Madison Pike and Walton - Nicholson Road (Nicholson area) has been changed from commercial-rural to commercial-retail/service to reflect this area's increasing importance as a provider of convenience goods for a larger and growing area.

An area located along the south side of Amsterdam Road, west of Doriel Street, previously identified for a shopping center providing convenience type goods and service, has been deleted. This area has been developed in residential land uses.

Office

Land so classified reflects existing or recommended areas for concentrations of office and related type uses. These areas are designated on the basis of locations which are easily accessible from the major corridors of transportation and which might also take advantage of proximity to other related uses (e.g., major public office buildings, hospitals, etc.). It is recognized that office type development is little affected by noise associated with major thoroughfares, often has the potential for interesting architectural treatment, and can provide a transition between more intense and less intense land use activities.

New areas identified for office development in this Plan Update are as follows:

- The area located north of I-275 and extending from Taylor Mill Road west to the CSX Railroad, where Fidelity is now located, is recommended to be changed from the designation as a special development area to office, to better reflect its current use.
- An area located southwest of Kyles Lane and extending south along the north side of Madison Pike has been changed from residential development at 2.1 to 4.0 dwelling units per net acre to commercial office.
- The area located at the corner of Kentucky Route 17 and Dudley Pike, which is currently designated for office use in the 1991 Plan Update is recommended to be expanded toward the north.
- Areas located along the northeast and southwest sides of Buttermilk Pike in the city of Crescent Springs, west of the Anderson/Bromley-Crescent Springs Road intersection in the vicinity of Harris Road, are recommended to be changed from residential development at 7.1 to 14.0 dwelling units per net acre to commercial-office.

The area located along the north side of Grandview Drive in the city of Fort Mitchell, recommended in the 1991 Plan Update for office development has been deleted. This area is now recommended for commercial - retail/service use.

Rural

Land areas so classified are characterized by existing or recommended commercial concentrations intended to provide comparison and convenience type commercial activities to serve the rural population. Such areas are recommended to be located within the Non-Urban Service Area. This Plan Update does not recommend additional areas for commercial-rural development. Within the Non-Urban Service Area are many existing commercial land uses which are recommended for other uses. Most of these uses are scattered on small parcels or on small groups of parcels, with the exception of areas along U.S. 25 south of the city of Walton, where a number of commercial uses are located along the highway toward Grant County. This Plan Update recommends that further study be made to evaluate the use of these areas, including traffic flow, to determine the extent of these commercial uses and the feasibility/need for additional commercial service in the area.

SPECIAL DEVELOPMENT AREA

Land areas so designated are intended to identify locations for specialized activities, such as: entertainment and amusement type functions; extensive type commercial activities which require good access to the regional highway system; and riverfront commercial development, which relates to the special advantages of the Cincinnati/Northern Kentucky riverfront. This category is also used to identify areas with potential for mixed land uses (e.g., Commercial/Residential/ Recreational and

Public/Semi-Public).

This Plan Update recommends new areas for special development and/or expansion of existing areas. The MainStrasse area in the city of Covington, which is identified as a special development area, is recommended to be enlarged. The new Northern Kentucky Convention Center is being constructed within the area along Second Street in Covington, which is designated for Special Development land use. This area is expanded west on the north side of Rivercenter Boulevard. to the CSX Railroad, including an area west of Johnson Street, north of Fourth Street. A new special development area has been identified along the east side of I-71/75 where the Euclid/Jefferson Avenue interchange has been abandoned. This abandonment has created a five (5) to nine (9) acre parcel suitable for redevelopment that would be compatible with residential uses directly to the south and east of this location.

COMMERCIAL CONCENTRATIONS - A SUMMARY

The foregoing descriptions have provided a general overview of commercial recommendations included in the Recommended Land Use Plan. These recommendations are an attempt to achieve the intent of the previously stated Goals and Objectives. One of the major efforts has been to determine the amount and location of commercial facilities primarily on the basis of what could be supported by the forecasted population. Certain areas which are presently used for commercial functions are not designated as "Commercial" in the Plan Update. This is a purposeful attempt to minimize problem type development, while simultaneously discouraging over-development which could have the effect of endangering the economic health of general commercial endeavors throughout the region.

The basis of the comprehensive plan approach, in regard to designating locations of commercial concentrations, has been generally described in the foregoing text. Basis has been drawn from various support information developed in other studies and research accomplished throughout the nation. Such information has indicated, generally, the size of population necessary to support various types of commercial activities.

The Plan Update hereby recommends that, whenever proposals are made for development of new or redeveloped commercial concentrations, market analysis type studies and "Development Plan" proposals be submitted to proper authorities for review. Such market studies should provide reasonable basis upon which to determine whether or not the support population is available and that such proposed concentrations will be a benefit to the area, as opposed to a drain on the area's resources. Simultaneously, the "Development Plan" requirement should insure design which incorporates the desirable characteristics of a commercial center as discussed herein.

One of the most important considerations in connection with commercial development, will be timing. Location of new, or expansion of existing, commercial facilities should be based upon need. Premature development not based on sound findings of need,

will work to the detriment of the area and will run counter to the intended objectives of the plan. It is most important to recognize that commercial development is a service kind of activity, the amount and location of which should be based on service need to the existing and forecasted population. The fact that Kenton County is part of a larger regional complex renders it difficult to exactly measure the potential drawing power of various types of commercial concentrations. However, as previously noted, market research studies, past experience, and good regulatory measures, reasonably enforced, should insure sound development of needed commercial activity.

COMMUNITY FACILITIES

Land so classified in the Plan Update has been subcategorized into two classifications -- "School Parks" and "Other Community Facilities".

School Parks

Land so classified is either used presently, or is recommended to be used, for public school facilities and coordinated recreational facilities to serve both the school and recreation needs of the surrounding neighborhood. This category is used only to identify those schools which are a part of the recommended public school system for grades kindergarten through twelve. This entire category is discussed in detail under the heading of "Educational Facilities" in Chapter VI. However, a specific change is discussed as follows:

- To reflect the construction of a new elementary and middle school facility, the area located along the east side of Madison Pike, north of Pelly Road, previously identified for residential uses, is changed to "Community Facilities-School/Parks".

Other Community Facilities

This category is intended to be inclusive of such facilities as: hospitals, private or parochial schools, colleges, universities, park and recreational facilities, fire and police protection facilities, and all other major types of facilities which involve provision of a public service or interest function to the area (e.g., federal, state, regional, and local government offices and other facilities, post offices, museums, and other historically significant features, cemeteries, etc.). This category is also fully discussed in the Community Facilities chapter. However, specific areas are described as follows:

The Kenton County Fiscal Court has purchased land in the city of Covington, adjacent to the proposed convention center, for a new court facility which will contain approximately 200,000 square feet. A 1,600 space parking garage to serve both the court facility and convention center is also proposed to be constructed. This area bounded by on the south by Third Street, on the east by Scott Street, and on the west by Madison Pike, previously identified for office uses, is changed to "Community Facilities - Other Community Facilities".

The Plan Update continues to recommend the creation of a special passive park-like

setting to be developed in the area around the Cathedral Basilica of the Assumption. The area recommended for this type use would be located between 11th and 12th Streets and extend from the area along the west side of Madison Avenue east to near Greenup Street. This area, which was first recommended by the NKAPC in the 1967 Covington Comprehensive Plan, and which was later incorporated within the first 1972 Area-Wide Plan and subsequent updates to the present, would allow for an increased view to the entrance and beauty of the Cathedral. Such development would put the Cathedral (a near replica of the Notre Dame Cathedral of Paris, France) in an aesthetic park-like setting for all to view with some feeling of quiet and openness. This outstanding structure is currently lost in the mix of surrounding commercial development/billboards, etc., blocking the beauty of this facility. This structure should not only be preserved (this structure is on the National Register of Historic Places), but protected from undesirable surrounding elements which could endanger its aesthetic quality.

Since the last Plan Update, Bishop Howard School, at Scott and 12th Streets, was purchased by the Covington School Board and converted/renovated for a preschool public facility along with development of a park serving this facility -- further enhancing the area around the Cathedral which included: lighting of the exterior of the building, detailing the architectural features of the Cathedral; landscaping of the entire premises; improved/expanded off street parking facilities; walkway and other plaza garden-type amenities.

RAILROADS

Land so classified is inclusive of railroad rights-of-way and marshaling yards.

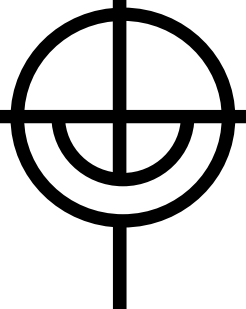
WATER

Land so classified includes all lands covered by water in Northern Kentucky.

STREETS AND ALLEY RIGHTS-OF-WAY

A significant amount of acreage is utilized for transportation facilities, which are discussed in detail in Chapter VIII.

CHAPTER VI
COMMUNITY
FACILITIES



CHAPTER VI

COMMUNITY FACILITIES

INTRODUCTION

Community facilities addressed within this Plan Update are: schools, recreation and open space, fire protection, police protection, libraries and health care facilities.

This section contains a review of generally accepted standards for these various community facilities, identification of facilities which have been built, closed or expanded since the 1991 Plan Update, and recommendations for each type of community facility.

SCHOOL - PARK PLAN

The School-Park plan is based on the concept of schools sharing their indoor/outdoor facilities with the surrounding neighborhood and community, thus, becoming an integral part of the community. This concept has been used in the planning of schools and parks since the 1972 Plan when the initial Area-Wide Comprehensive Plan was prepared. More information on school-parks can be found in the following section - Recreation and Open Space.

EXISTING SCHOOL FACILITIES

There are five public school districts in Kenton County:

- Beechwood Independent School District
- Covington Independent School District
- Erlanger/Elsmere Independent School District
- Kenton County School District
- Ludlow Independent School District

The locations of all public and private schools and districts are shown on Maps [6A](#) and [6B](#). Information on existing public and private school facilities is shown on Tables [6-1](#) and [6-2](#). Plan recommendations and more detailed information on public schools are shown on [Table 6-1](#) and on Maps [6C](#) and [6D](#).

Several changes which occurred within the public school system since the last Plan Update, due to changes in population, are the following:

- Bromley and Crescent Springs Elementary schools were closed and incorporated into the new primary and intermediate schools at River Ridge Elementary School (No. 19, Map 6A) ;

TABLE 6 - 1
EXISTING AND PROPOSED PUBLIC SCHOOL FACILITIES
KENTON COUNTY 1995

PAGE 1 OF 5

MAP ID	NAME AND LOCATION OF SCHOOL	SERVICE AREA	GRADES SERVED	NO. OF STUDENTS 1994-95 ⁽¹⁾	CAPACITY	CLASSROOMS			SIZE OF SITE (ACRES)	COMMENTS/ <i>RECOMMENDATIONS</i>
						GENERAL	GENERAL PURPOSE	SPECIAL		
LUDLOW SCHOOL DISTRICT										
1	Goetz Elementary: Oak and Adela Streets, Ludlow	City of Ludlow	K - 6	657	468 ⁽²⁾	18	4	0	2.3	<i>School may need expansion if enrollment projections increase.</i>
2	Ludlow Junior and Senior High School: Elm and Adela Streets, Ludlow	(Same as above)	7 - 12	439	775 ⁽²⁾	18	3	7	(same site as above)	<i>School to be closed and area to be served by new school #40.</i>
COVINGTON SCHOOL DISTRICT										
3	John G. Carlisle Elementary: 910 Holman Avenue, Covington	Northwestern portion of Covington and portions of Ludlow	K - 6	489	510 ⁽³⁾	20	3	4	4.6	New school with added recreational area
4	First District Elementary: 525 Scott Street, Covington	Covington Basin Area	K - 6	354	640 ⁽³⁾	22	2	2	1.5	-
5	Fourth District Elementary: 1516 Scott Street, Covington	East central portion of Covington	K - 6	398	430 ⁽³⁾	23	3	1	1.1	-
6	Sixth District Elementary: 19th and Maryland Streets, Covington	Central portion of Covington	K - 6	444	430 ⁽³⁾	19	2	0	2.4	-
7	Holmes Junior and Senior High School: 25th and Madison Avenue, Covington	Covington basin and Ludlow areas	7 - 12	1,809	2,820 ⁽³⁾	66	9	42	21.9	New computer labs.
8	Virginia Chapman Vocational School: 25th and Madison Avenue, Covington	(Same as above)	8 - 12	- ⁽⁴⁾	-	9	1	17	-	Shares campus with Holmes High School.
9	Glenn O. Swing Elementary: W. 19th Street, Covington	West central portion of Covington	K - 6	442	585 ⁽³⁾	23	3	4	7.1	-
10	Ninth District Elementary: 28th and Indiana Streets, Covington	Latonia and South Covington area	K - 6	450	760 ⁽³⁾	27	4	0	7.2	-
11	Latonia Elementary: 39th and Huntington Streets, Covington	Central Latonia, Winston Park, and North Taylor Mill areas	K - 6	577	730 ⁽³⁾	29	3	2	5.5	-

(1) End of year enrollment.

(2) Capacity of schools was estimated using the maximum number of students per teacher for a particular type of school, as indicated in table 6-4, and assuming one teacher per classroom.

(3) Figure received from the Board of Education. Figures for Kenton County School District taken from 1994 Master Facilities Plan.

(4) Enrollment included in Holmes High School. 1,092 participate in vocational classes.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 6 - 1

MAP ID	NAME AND LOCATION OF SCHOOL	SERVICE AREA	GRADES SERVED	NO. OF STUDENTS 1994-1995	CAPACITY	CLASSROOMS			SIZE OF SITE (ACRES)	COMMENTS/ <i>RECOMMENDATIONS</i>
						GENERAL	GENERAL PURPOSE	SPECIAL		
BEECHWOOD SCHOOL DISTRICT										
12	Beechwood Elementary and High School: Beechwood Road, Fort Mitchell	Fort Mitchell and Fort Wright areas	K - 6 7 - 12	515 458	598 775	21 24	3	2 1	16.7	<i>Beechwood School is currently used as a K - 12 facility. It is recommended that this facility eventually be utilized solely as an elementary facility.</i>
ERLANGER/ELSMERE SCHOOL DISTRICT										
13	Lloyd High School: Bartlett Avenue, Erlanger	Villa Hills, Crescent Springs, Erlanger and Elsmere areas	9 - 12	624	1,395	31	3	14	31.7	Gymnasium proposed to be enlarged.
14	Tichenor Middle School: 305 Barlett Avenue, Erlanger	Erlanger and Elsmere areas	6 - 8	538	481	27	3	2	–	Shares with Lloyd High School.
15	J.W. Miles Elementary: 208 Sunset Avenue, Erlanger	Northwestern portion of Erlanger and Western portion of Edgewood	K - 5	312	360	13	3	1	6.9	–
16	A.J. Lindeman Elementary: 558 Erlanger Road, Erlanger	Northern and Eastern portions of Erlanger	K - 5	341	311	19	3	0	6.3	–
17	Dorothy Howell Elementary: Central Row and Buckner Streets, Elsmere	Central portion of Elsmere	K - 5	219	428	13	3	4	5.5	–
18	Arnett Elementary: 3552 Kimberly Drive, Elsmere	Portions of Elsmere and Edgewood areas	K - 5	314	460	11	3	7	10.3	–
KENTON COUNTY SCHOOL DISTRICT										
19	River Ridge Primary: 2772 Amsterdam, Villa Hills	Bromley, Crescent Springs, Villa Hills, Crescent Park, and part of Lakeside Park and Fort Mitchell	K - 3	671	675	34	3	0	11.8	Completed in 1992. Adjoins buildings with River Ridge Intermediate.
20	River Ridge Intermediate: 2772 Amsterdam, Villa Hills		4 - 6	465 (Incl. preschool)	600	37	3	0	–	Completed in 1992. (See above)

(1) End of year enrollment.

(2) Capacity of schools was estimated using the maximum number of students per teacher for a particular type of school, as indicated in table 6-4, and assuming one teacher per classroom.

(3) Figure received from the Board of Education. Figures for Kenton County School District taken from 1994 Master Facilities Plan.

(4) Enrollment included in Holmes High School. 1,092 participate in vocational classes.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 6 - 1

MAP ID	NAME AND LOCATION OF SCHOOL	SERVICE AREA	GRADES SERVED	NO. OF STUDENTS 1994-1995	CAPACITY	CLASSROOMS			SIZE OF SITE (ACRES)	COMMENTS/ <i>RECOMMENDATIONS</i>
						GENERAL	GENERAL PURPOSE	SPECIAL		
21	Park Hills Center: 1030 Old State Road, Park Hills	Kenton County	6 - 12	37	N/A	24	2	1	4.7	Changed in 1992 from an elementary school to an alternative school for grades 6 - 12.
22	Fort Wright Elementary: 501 Farrell Drive, Fort Wright	Park Hills and Fort Wright areas	K - 5	404 (Incl. preschool)	450	18	3	0	7.5	Changed in 1992 from a school serving primarily handicapped students to an elementary school. A gym, library, 4 classrooms, office space, meeting facilities, and new playground and recreation facilities were added.
23	J.A. Caywood Elementary: 25 Summit Drive, Edgewood	Lakeside Park, Crestview Hills, and western portion of Edgewood	K - 5	450	575	24	3	0	4.6	-
24	Dixie Heights High School: 3010 Dixie Highway, Crestview Hills	Northern Fort Wright, Park Hills, Fort Mitchell, Crestview Hills, and Edgewood areas	9 - 12	1,071	1,643	29	5	24	11.6	-
25	Turkeyfoot Middle School: 3230 Turkeyfoot Road, Edgewood	Edgewood, Crestview Hills, and Lakeside Park areas	6 - 8	835	750	41	3	14	17.7	See Map ID Number 39.
26	R.C. Hinsdale Elementary: 440 Dudley Pike, Edgewood	Edgewood area	K - 5	648	700	29	3	0	20.2	Four new classrooms, a gym, office space, and meeting facilities have been added.
27	Scott High School: 5400 Old Taylor Mill Road, Taylor Mill	Southern Covington, southern Fort Wright, and Taylor Mill areas	9 - 12	1,102	1,488	33	5	15	77.6	-
28	Woodland Middle School: 5399 Taylor Mill Road, Taylor Mill	Latonia and Taylor Mill areas	6 - 8	846	930	47	3	-	-	Shares campus with Scott High School

(1) End of year enrollment.

(2) Capacity of schools was estimated using the maximum number of students per teacher for a particular type of school, as indicated in table 6-4, and assuming one teacher per classroom.

(3) Figure received from the Board of Education. Figures for Kenton County School District taken from 1994 Master Facilities Plan.

(4) Enrollment included in Holmes High School. 1,092 participate in vocational classes.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 6 - 1

MAP ID	NAME AND LOCATION OF SCHOOL	SERVICE AREA	GRADES SERVED	NO. OF STUDENTS 1994-1995	CAPACITY	CLASSROOMS			SIZE OF SITE (ACRES)	COMMENTS/ <i>RECOMMENDATIONS</i>
						GENERAL	GENERAL PURPOSE	SPECIAL		
29	Taylor Mill Elementary: 5907 Taylor Mill Road, Taylor Mill	Taylor Mill and south Covington areas	K - 5	769 (Incl. preschool)	711	34	3	0	7.8	See Map ID number 38.
30	Beechgrove Elementary: 1029 Bristow Road, Independence	West Independence, Beechgrove, and southern Erlanger/Elsmere areas	K - 5	768	700	34	2	0	9.8	New playground and recreation facilities added. See Map ID number 38.
31	Simon Kenton High School: 11132 Madison Pike, Independence	Independence and southern Kenton County areas	9 - 12	1,065	1,674	36	5	18	37.5	-
32	Kenton Elementary: 11246 Madison Pike, Independence	Northwest Independence area	K - 5	622	500	25	3	1	11.9	New playground and recreation facilities added. See Map ID number 38.
33	White's Tower Elementary: 2977 Harris Pike, Unincorporated Kenton County	East Independence and Nicholson areas	K - 5	454 (Incl. preschool)	700	29	2	0	13.5	New playground and recreation facilities, 8 classrooms, a gym, a library, office space, and meeting facilities have been added.
34	Twenhofel Junior High: 11800 Taylor Mill Road, Unincorporated Kenton County	Latonia and southern Kenton County areas	6 - 8	907	780	38	3	13	26.8	See Map ID number 39.
35	Ryland Heights Elementary: 3845 Stewart Road, Ryland Heights	Ryland Heights and eastern portion of Kenton County	K - 5	351 (Incl. preschool)	525	31	3	1	11.9	New playground and recreation facilities, a gym, a library, office space, and meeting facilities have been added.
36	Visalia Elementary: 4041 Visalia Road, Visalia	Visalia and Kenton County areas	K - 5	175	250	10	3	0	9.0	New playground and recreation facilities added.
37	Piner Elementary: 2845 Rich Road, Unincorporated Kenton County	Southern portion of Kenton County	K - 5	309	345	15	3	0	10.4	A gym, library, music room, office space, meeting facilities, and new playground and recreational facilities were added in 1994.

(1) End of year enrollment.

(2) Capacity of schools was estimated using the maximum number of students per teacher for a particular type of school, as indicated in table 6-4, and assuming one teacher per classroom.

(3) Figure received from the Board of Education. Figures for Kenton County School District taken from 1994 Master Facilities Plan.

(4) Enrollment included in Holmes High School. 1,092 participate in vocational classes.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 6 - 1

MAP ID	NAME AND LOCATION OF SCHOOL	SERVICE AREA	GRADES SERVED	NO. OF STUDENTS 1994-1995	CAPACITY	CLASSROOMS			SIZE OF SITE (ACRES)	COMMENTS/ <i>RECOMMENDATIONS</i>
						GENERAL	GENERAL PURPOSE	SPECIAL		
38	New: Madison Pike near Pelly Road	Independence, Taylor Mill, and South Covington areas	K - 5						60.0	Scheduled to be completed by 1997-98 school year. Will relieve overcrowding in Beechgrove, Taylor Mill, and Kenton Elementary Schools.
39	New: Madison Pike near Pelly Road	Independence, Taylor Mill, and South Covington areas	6 - 8						-	Shares site with elementary school. (See above). Will relieve overcrowding in Twenhofel and Turkeyfoot Middle Schools.
40	Proposed	Fort Wright, Park Hills, Ludlow, Bromley, Villa Hills, Crescent Springs, and Fort Mitchell areas	6 - 8							
OTHER										
A	Northern Kentucky Technical School: 1025 Amsterdam Road, Park Hills	Regional		350 full time 400 part time	N/A				18.3	This facility also offers many part time and short term programs, accomodating about 2,500 students in all programs.
B	J.D. Patton Vocational School: 3230 Turkeyfoot Road, Edgewood	Kenton County	10 - 12	200	N/A	0	0	9	-	Shares Campus with Turkeyfoot Middle School.
C	Northern Kentucky University: Louie B Nunn Drive, Highland Heights (Campbell County)	N/A		11,677 (Spring of 1995)	N/A				34.7	Covington Campus.
D	Northern Kentucky Health Technology Center: 790 Thomas More Parkway, Edgewood	Regional		162 (Fall of 1996)	N/A					This facility is a branch location of the Northern Kentucky Technical School.

(1) End of year enrollment.

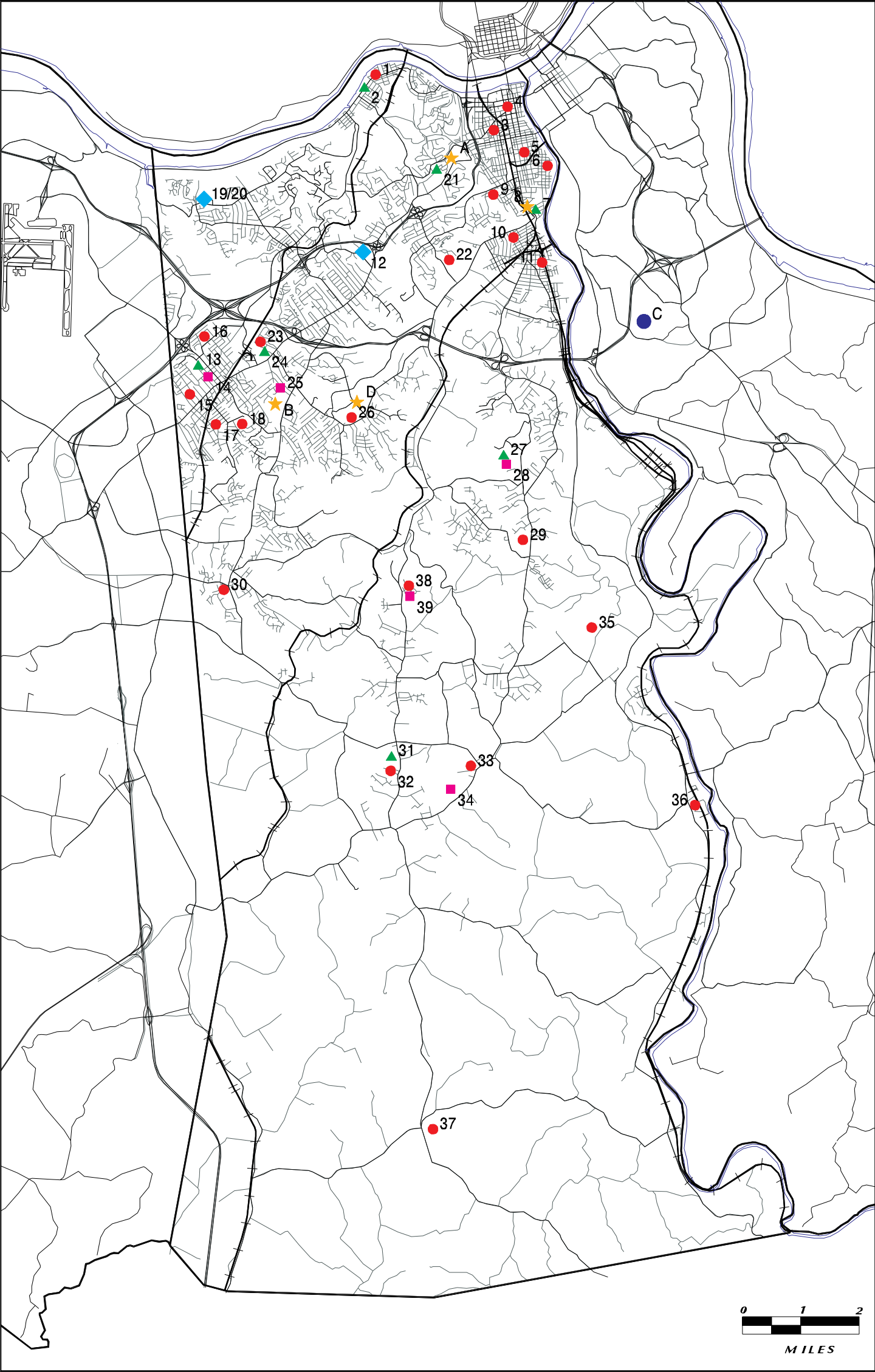
(2) Capacity of schools was estimated using the maximum number of students per teacher for a particular type of school, as indicated in table 6-4, and assuming one teacher per classroom.

(3) Figure received from the Board of Education. Figures for Kenton County School District taken from 1994 Master Facilities Plan.

(4) Enrollment included in Holmes High School. 1,092 participate in vocational classes.

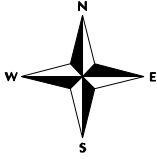
SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.



MAP ID NO.	SCHOOL NAME
1	Goetz Elementary
2	Ludlow Junior and Senior High
3	John G. Carlisle Elementary
4	First District Elementary
5	Fourth District Elementary
6	Sixth District Elementary
7	Holmes Junior and Senior High
8	Virginia Chapman Vocational
9	Glenn O. Swing Elementary
10	Ninth District Elementary
11	Latonia Elementary
12	Beechwood Elementary and High
13	Lloyd High
14	Tichenor Middle
15	J.W. Miles Elementary
16	A.J. Lindeman Elementary
17	Dorothy Howell Elementary
18	Arnett Elementary
19	River Ridge Primary
20	River Ridge Intermediate
21	Park Hills Center
22	Fort Wright Elementary
23	J.A. Caywood Elementary
24	Dixie Heights High
25	Turkeyfoot Middle
26	R.C. Hinsdale Elementary
27	Scott High
28	Woodland Middle
29	Taylor Mill Elementary
30	Beechgrove Elementary
31	Simon Kenton High
32	Kenton Elementary
33	White's Tower Elementary
34	Twenhofel Junior High
35	Ryland Heights Elementary
36	Visalia Elementary
37	Piner Elementary
38	New Elementary School-Under Construction
39	New Middle School-Under Construction
A	Northern Kentucky Technical School
B	J.D. Patton Vocational School
C	Northern Kentucky University
D	Northern Kentucky Health Technology Center

SEE TABLE 6-1 FOR MORE INFORMATION



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MAP 6A

1996 COMPREHENSIVE PLAN KENTON COUNTY, KENTUCKY

EXISTING PUBLIC SCHOOLS

- Elementary School
- Middle School
- ▲ High School
- ◆ Combined School
- ★ Vocational School
- Northern Kentucky University

**TABLE 6-2
INVENTORY OF EXISTING PAROCHIAL AND
OTHER PRIVATE SCHOOL FACILITIES
KENTON COUNTY 1995**

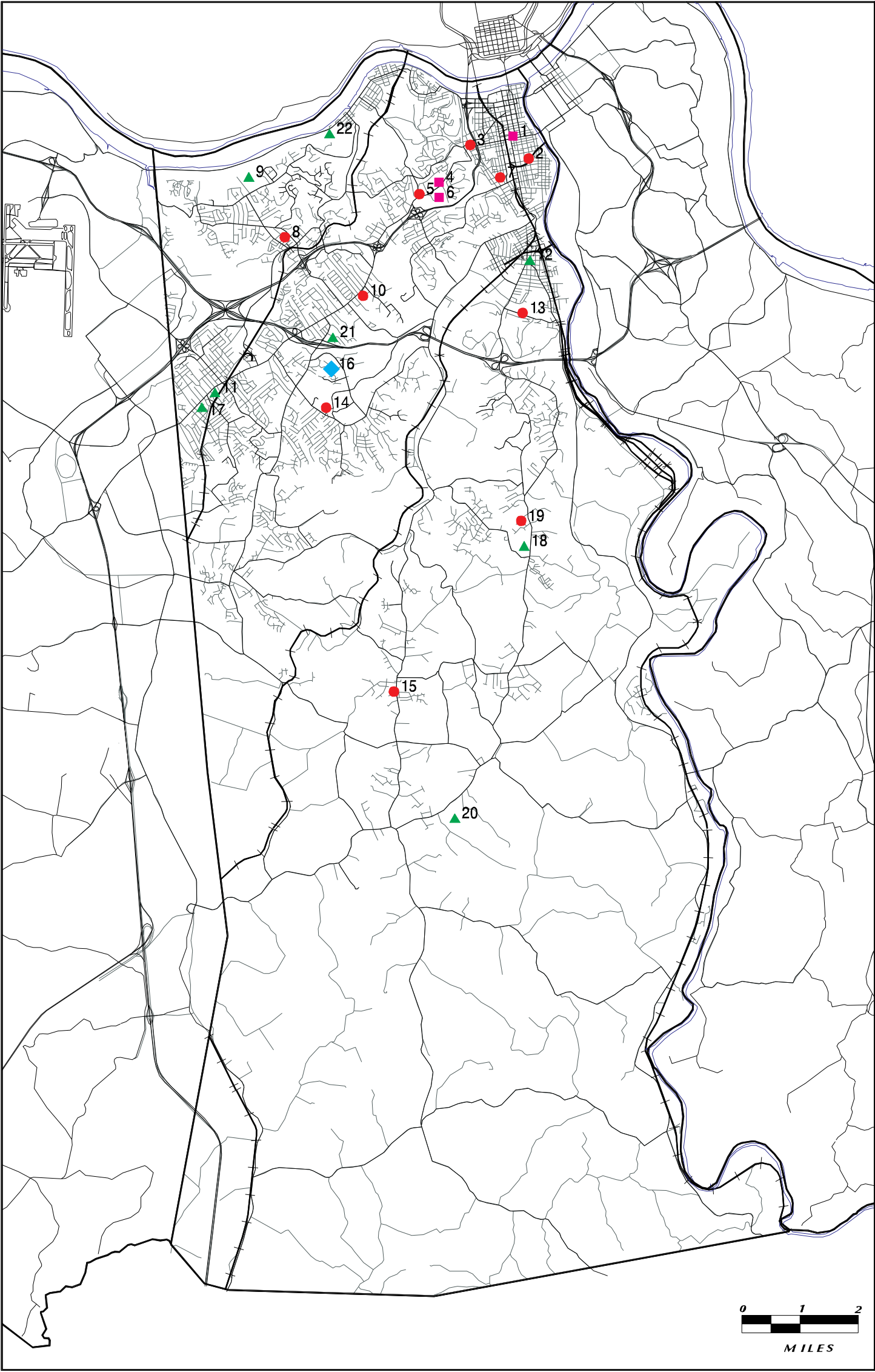
MAP ID	NAME OF SCHOOL	GENERAL LOCATION	GRADES SERVED	1994 - 1995 YEAR END ENROLLMENT	NUMBER OF CLASSROOMS			APPROXIMATE SIZE OF SITE (acres)	COMMENTS	
					GENERAL	GENERAL PURPOSE ⁽¹⁾	SPECIAL ⁽²⁾			
PAROCHIAL SCHOOLS										
1	Covington Latin High School	21 East 11th Street, Covington	8 - 12	201	9	5	4	0.2	--	
2	Holy Family Catholic School	338 East 16th Street, Covington	K - 8	165	9	5	--	0.7	--	
3	Prince of Peace Elementary	625 Pike Street, Covington	K - 8	121	6	2	2	0.3	--	
4	Covington Catholic High School	1600 Dixie Highway, Park Hills	9 - 12	500	23	5	3	16.0	--	
5	Saint Agnes Elementary	1322 Sleepy Hollow Road, Fort Wright	K - 8	518	23	15	--	4.0	New building containing a gym, offices, and classrooms completed in summer 1990	
6	Notre Dame Academy	Hilton Drive, Park Hills	9 - 12	637	24	5	11	28.0		--
7	Saint Augustine Elementary	1840 Jefferson Street, Covington	1 - 8	185	13	3	1	1.3		--
8	Saint Joseph Elementary	2472 Lorraine Street, Crescent Springs	1 - 8	561	24	6	--	6.0	--	
9	Villa Madonna Academy	2500 Amsterdam Road, Villa Hills	1 - 8 9 - 12	251 138	16 7	3 2	3 4	220.0	--	
10	Blessed Sacrament Elementary	2407 Dixie Highway, Fort Wright	K - 8	545	24	6	--	3.4	--	
11	Saint Henry Elementary and High School	3825 and 3837 Dixie Highway, Elsmere	K - 8 9 - 12	497 394	20 18	11 3	-- 2	3.7	Combined facility with elementary	
12	Holy Cross Elementary and High School	3615 and 3617 Church Street, Covington	K - 8 9 - 12	235 350	11 15	5 4	-- 11	1.4	Combined facility with elementary	
13	Saint Anthony Elementary	Grand and Howard Streets, Taylor Mill	K - 8	185	8	3	--	4.0	--	
14	Saint Pius X Elementary	348 Dudley Pike, Edgewood	K - 8	588	25	6	--	23.0	--	
15	Saint Cecilia Elementary	5309 Madison Pike, Independence	1 - 8	193	8	4	--	5.5	--	
16	Thomas More College	333 Thomas More Pkwy, Crestview Hills	--	1,426	--	--	--	275.0	--	
OTHER PRIVATE SCHOOLS										
17	Orchard Street Christian School	815 Orchard Street Elsmere	K - 12	98	7	3	2	12,000 sq. ft. building	--	
18	Calvary Christian School	5955 Taylor Mill Road Covington	K - 12	493	25	2	2	63.0	--	
19	Covington Seventh Day Adventist	5235 Taylor Mill Road Taylor Mill	1 - 8	8	1	1	--	5.0	--	
20	Community Christian Academy	11875 Taylor Mill Road Kenton County	K - 12	122	6	2	2	23.0	--	
21	Northern Kentucky Baptist Church	2681 Turkeyfoot Road Lakeside Park	1 - 12	0	1	Church	0	6.5	First year in 1995/1996	
22	Pleasant View Baptist Church	240 Pike Bromley	K - 12	47	4	1	1	1.0	--	

(1) General purpose rooms include such facilities as auditoriums, cafeterias, gymnasiums, libraries, etc.

(2) Special purpose rooms include all rooms which are specially equipped for a particular course of study, e.g. band, music, science, home economics, computers, etc.

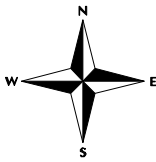
SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.



MAP ID NO.	SCHOOL NAME
1	Covington Latin High School
2	Holy Family Catholic School
3	Prince of Peace Elementary
4	Covington Catholic High School
5	Saint Agnes Elementary
6	Notre Dame Academy
7	Saint Augustine Elementary
8	Saint Joseph Elementary
9	Villa Madonna Academy
10	Blessed Sacrament Elementary
11	Saint Henry Elementary and High School
12	Holy Cross Elementary and High School
13	Saint Anthony Elementary
14	Saint Pius X Elementary
15	Saint Cecilia Elementary
16	Thomas More College
17	Orchard Street Christian School
18	Calvary Christian School
19	Covington Seventh Day Adventist
20	Community Christian Academy
21	Northern Kentucky Baptist Church
22	Pleasant View Baptist Church

SEE TABLE 6-2 FOR MORE INFORMATION.



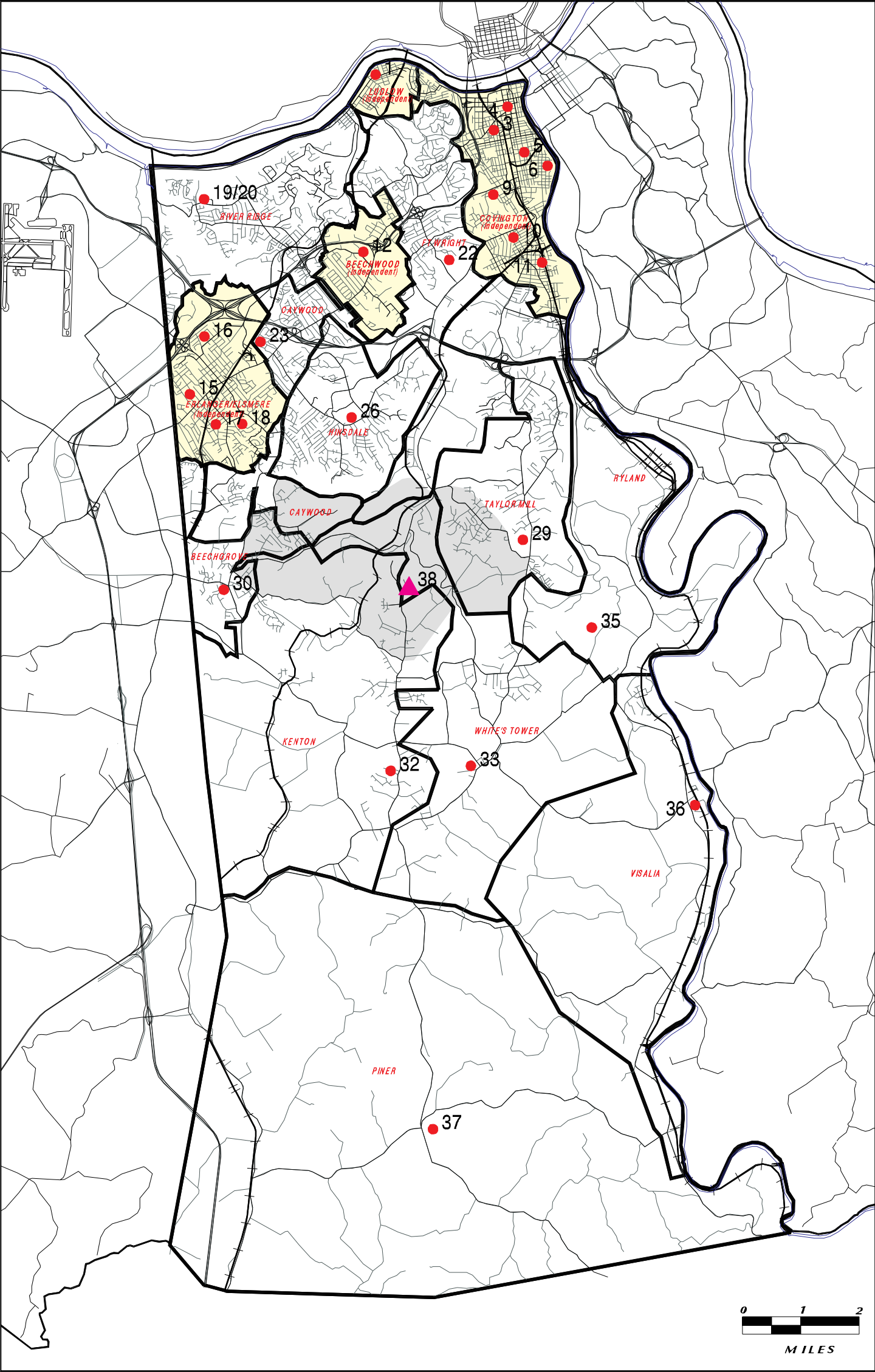
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1996 COMPREHENSIVE PLAN
KENTON COUNTY, KENTUCKY

PAROCHIAL AND PRIVATE SCHOOLS

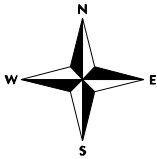
- Elementary School
- High School
- ▲ Combined School
- ◆ Thomas More College



MAP ID NO.	SCHOOL NAME
1	Goetz Elementary
3	John G. Carlisle Elementary
4	First District Elementary
5	Fourth District Elementary
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17	Dorothy Howell Elementary
18	Arnett Elementary
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20	River Ridge Intermediate
22	Fort Wright Elementary
23	J.A. Caywood Elementary
26	R.C. Hinsdale Elementary
29	Taylor Mill Elementary
30	Beechgrove Elementary
32	Kenton Elementary
33	White's Tower Elementary
35	Ryland Heights Elementary
36	Visalia Elementary
37	Piner Elementary
38	New Elementary School-Under Construction

SEE TABLE 6-1 FOR MORE INFORMATION

* NOTE:
These are general, not specific, proposed locations.



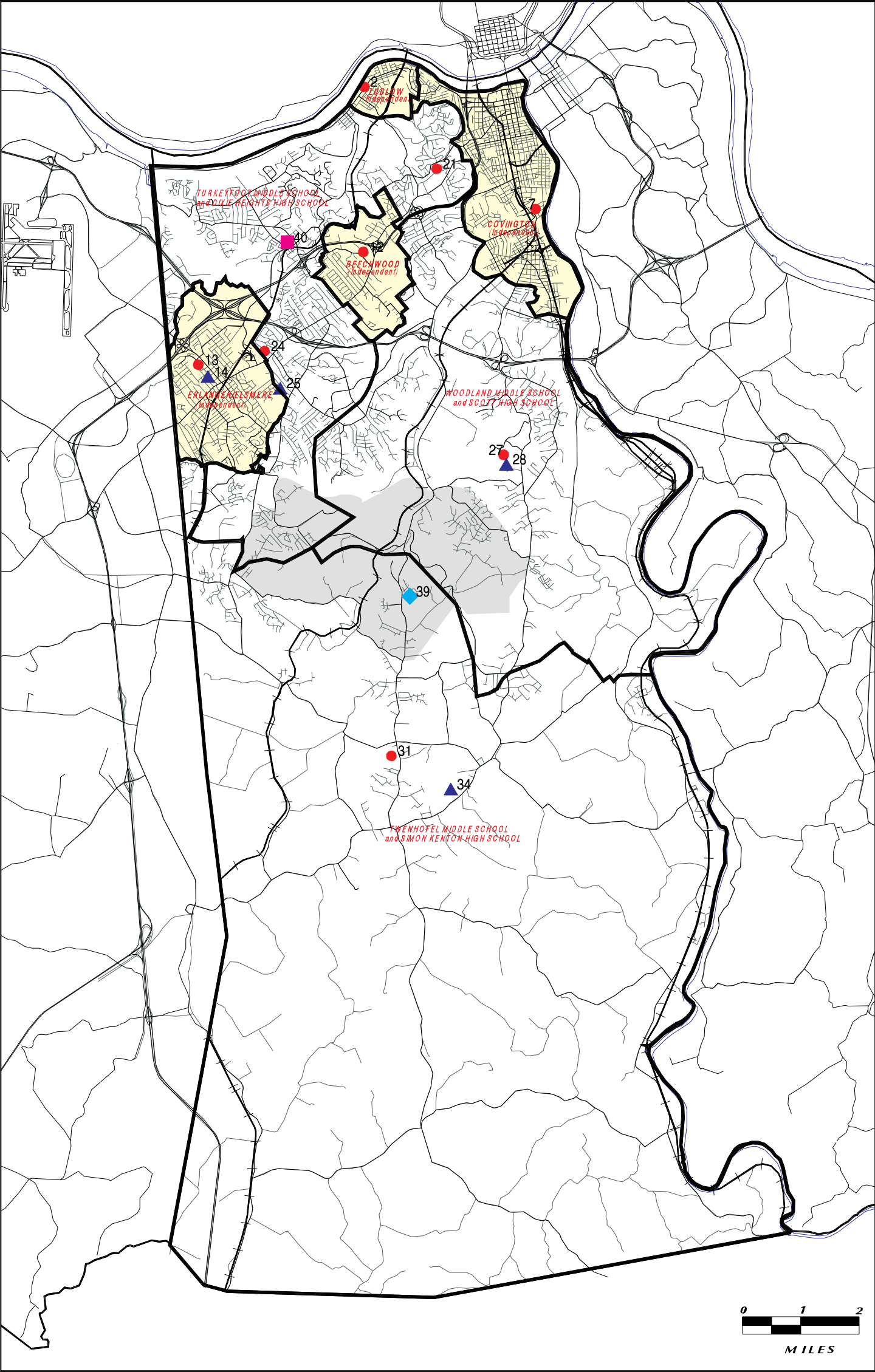
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1996 COMPREHENSIVE PLAN
KENTON COUNTY, KENTUCKY

ELEMENTARY SCHOOL PLAN

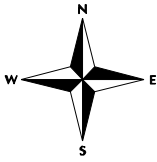
- Existing School-Park Facility
- New School-Park Facility
- Existing Service Area Boundary
- Independent School Districts
- Proposed School District *



MAP ID NO.	SCHOOL NAME
2	Ludlow Junior and Senior High
7	Holmes Junior and Senior High
8	Virginia Chapman Vocational
12	Beechwood Elementary and High
13	Lloyd High
14	Tichenor Middle
21	Park Hills Center
24	Dixie Heights High
25	Turkeyfoot Middle
27	Scott High
28	Woodland Middle
31	Simon Kenton High
34	Twenhofel Junior High
39	New Middle School-Under Construction
40	Proposed Middle School*

SEE TABLE 6-1 FOR MORE INFORMATION

* NOTE:
These are general, not specific, proposed locations.



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MAP

6D

1996 COMPREHENSIVE PLAN

KENTON COUNTY, KENTUCKY

MIDDLE AND HIGH SCHOOL PLAN

- Existing High School-Park Facility

Existing Middle School-Park Facility

New School-Park Facility

Proposed School-Park Facility

Existing Service Area Boundary (Middle and High School)

Independent School Districts

Proposed Service Area (Middle School) *

- Park Hills Elementary was converted into an alternative school (grades 6-12), and is now called "Park Hills Center" (No. 21, Map 6C);
- Fort Wright School, which primarily served handicapped students, became Fort Wright Elementary, and now serves preschool, primary and intermediate aged students (No.22, Map 6C) ;
- Additions have been made to Fort Wright, Hinsdale, Piner, White's Tower and Ryland Elementary schools;
- John G. Carlisle Elementary School in Covington was razed and replaced with a new school building constructed on the same site, which also included more land area than the original building (No. 3, Map 6C); and
- A new elementary and middle school is scheduled to be completed by the 1997-98 school year on Madison Pike near Pelly Road, serving the Independence, Taylor Mill and South Covington areas (No. 38 and No. 39, Map 6C).

There have been no major changes within the parochial school system. However, property has been acquired on Donaldson Road in Boone County for a new high school to replace the St. Henry High School. Current plans of the Covington Diocese are that elementary and middle school students will remain at the school in Elsmere.

CHILDCARE AND EARLY CHILDHOOD EDUCATIONAL CENTERS

Different types of facilities available in the Northern Kentucky area are: childcare facilities which provide all day childcare for infants up to school age children and may be actual childcare centers or in-home facilities; Headstart facilities, which are federally funded facilities that provide educational programming for three and four year old children from low-income families; preschool facilities which provide an educational child development program for approximately 2 1/2 to 3 hour time frames, for children from 3 to 5 years of age; and school based after school programs which typically provide activities for children in kindergarten through fifth grade.

As population and employment trends change, the need for daycare and early childhood centers will increase. For example, increases in single-parent households and the continued trend of two wage earner households will create the need for additional day care. This Plan Update supports the establishment of day care facilities that are convenient and affordable for all families. Emphasis should be placed on the provision of these services within or near areas of employment.

Early Childhood Education Center - To comply with the Kentucky Education Reform Act, the Covington School District opened the Early Childhood Education Center. This facility, located along the north side of 12th Street, between Scott and Greenup Streets (formerly Bishop Howard Elementary School), is oriented towards four year old 'at risk' children and three year old handicapped children. It conducts two half day sessions

with approximately 150 students per session, and has outdoor play areas in addition to inside classrooms and activity rooms.

OTHER MAJOR EDUCATIONAL FACILITIES

Northern Kentucky Treatment Center - The Northern Kentucky Treatment Center is located on an 86 acre area on Turner Road in Kenton County. This facility provides education for 40 full-time residents who have committed public offenses and are under court custody.

Northern Kentucky Technical School - This school, now referred to as Northern Kentucky "Tech", changed its name in 1995 from Northern Kentucky State Vocational School. It is a State sponsored institution, which provides industrial and technical education to adults, high school students, and out-of-school youths who desire vocational training. It is comprised of three buildings situated on an 18-acre site overlooking the city of Covington in Kenton County. A wide variety of programs are offered, including on-site training programs at various industrial facilities. During the 1994-1995 school year, 350 full-time students and 400 part-time students were enrolled at this school. There are also two branch school locations, one in Edgewood in Kenton County (see below), and one in Campbell County.

Northern Kentucky Health Technology Center - This school is part of the Northern Kentucky Technical School (see above), and has been located at 790 Thomas More Parkway in Edgewood since 1983. Students at this school are trained to work in areas such as practical nursing, pharmacy technology, and medical office technology. Total enrollment at the beginning of the 1996/97 school year was 162 students.

Virginia Chapman Vocational School - This school is located on the Holmes High School campus in Covington. Students attend the vocational school for half of the school day, and attend Holmes High School for the other half of the school day. The 1995-96 enrollment was 5,081 students.

J.D. Patton Vocational School (formerly the Kenton County Vocational School) - This school is located on the campus of Turkeyfoot Junior High School in Edgewood, and is housed in one building with nine shops. The 1994-1995 enrollment is estimated to have been 200 junior and senior high school students who attended half day sessions.

Northern Kentucky University - Northern Kentucky University, located in Highland Heights in Campbell County, has good regional access via Interstate 275, Interstate 471, and Alexandria Pike (U.S. 27). Student enrollment at the university has increased since 1980. Total enrollment (full-time, part-time, and students enrolled in Chase College of Law) for the Spring Quarter 1995 was approximately 11,677. This represents an increase of approximately 3,400 students since 1986.

Thomas More College - Thomas More College is a liberal arts college, granting baccalaureate degrees, and is sponsored by the Diocese of Covington. The

approximate 275 acre campus is located on Turkeyfoot Road, just south of its interchange with Interstate 275 in Crestview Hills, Kenton County. Total enrollment (full-time, and part-time students), for the Fall of 1995 was 1,426. This represents an increase of 259 students since 1986.

SCHOOL ENROLLMENT TRENDS - PUBLIC AND PRIVATE

Table 6-3 shows public and private and parochial school enrollment trends from 1990 to 1995. These trends generally reflect the general population trend of the county, as described in Chapter IV "Population, Housing and Economic Conditions". Although most of the five (5) school districts are experiencing some gains or only small fluctuations, enrollment increases are occurring within school districts which include areas where population growth is also occurring (See Table 4-4). For example, the Covington School District has been gradually losing enrollment since the 1991 Plan Update, while the other districts are gaining students. One exception is the Ludlow School District which is fluctuating slightly, but overall since 1990 has gained student enrollment, while the city of Ludlow's population has been declining.

Parochial school enrollment which had been steadily decreasing since 1970 at the time of the 1991 Area-wide Comprehensive Plan Update (see Table 6-4, 1991 Plan Update) has begun to steadily increase since the 1992 school year (see Table 6-3). In addition, other private schools have also shown a steady increase during the same period.

Total school enrollment has followed the same trend as that of parochial and other private schools, with a decline between 1990 and 1991, then steadily increasing through 1995.

RECOMMENDED SCHOOL-PARK PLAN

Goals and Objectives

Basic Goals and Objectives, stated previously in Chapter II under "Education", are germane to the subject of this section, and are restated:

"To provide a quality education to all children in the area." -- "Effort should be made to ensure provision of a minimum level of education to all children in the area. It will be necessary to provide adequate facilities and personnel to fulfill the needs of such a basic quality education program. There will also be a need to provide for special education programs for children who are handicapped, retarded, or otherwise would not benefit from attending general education classes."

"To provide for a variety of additional educational opportunities to serve the unique needs, desires, and interests of the population." -- "Provision should be made for adequate higher educational facilities to serve the population of the

TABLE 6-3
PUBLIC, PAROCHIAL AND OTHER PRIVATE SCHOOL
BEGINNING OF YEAR ENROLLMENTS
KENTON COUNTY
1990 - 1995

SCHOOL	ENROLLMENT					
	1990	1991	1992	1993	1994	1995
Kenton County School District	11,174	11,290	11,630	11,897	11,967	11,992
Ludlow School District	1,035	1,050	1,058	1,040	1,069	1,053
Covington School District	5,719	5,569	5,508	5,429	5,287	5,277
Beechwood School District	847	895	930	958	973	974
Erlanger/Elsmere School District	2,162	2,168	2,206	2,169	2,184	2,280
Total Public Schools	20,937	20,972	21,332	21,493	21,480	21,576
Total Parochial Schools	6,446	5,610	5,928	6,019	6,209	6,420
OTHER PRIVATE SCHOOLS						
Orchard Street Christian School	78	80	83	87	96	101
Calvary Christian School	404	380	392	437	490	513
Covington Seventh Day Adventist	12	12	10	8	8	8
Community Christian Academy	84	97	115	124	154	177
Northern Kentucky Baptist Church	0	0	0	0	0	25
Pleasant View Baptist Church	32	34	38	37	44	47
Total Private Schools	610	603	638	693	792	871
Total School Enrollment	27,993	27,185	27,898	28,205	28,481	28,867

SOURCE: Public and Parochial School Districts in Kenton County.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

area and the surrounding region. Provision should also be made to provide for facilities and programs offering specialized education for preschool children, and general adult population, persons seeking vocational training, and other specialized types of educational programs."

"To provide educational facilities conveniently located to their intended service population but without racial disproportion." -- "Effort should be made to locate elementary education facilities so that the student enrollment is within a reasonable walking distance in urban areas. Elementary education facilities in non-urban areas, secondary education facilities, higher education centers, and specialized education facilities should be provided in locations which are easily accessible to the population of their service areas. Location and size of educational facilities should be based entirely on their ability to provide the most effective education program, and should not be constricted by arbitrary jurisdictional boundaries or special interest considerations. However, care should be taken in all education facility planning to ensure that racial disproportion does not exist."

RECOMMENDED SCHOOL STANDARDS

Table 6-4 outlines recommended School-Park standards developed by the Council of Educational Facility Planners International. These standards were used in the 1991 Plan Update and remain applicable to the development of school-parks in Kenton County. These recommended standards are used as general guides to make recommendations for school-parks in Kenton County. Although the chart is self-explanatory, a few important points should be reiterated:

- One-way walking distances for each school's service population should generally not exceed the following limits: three-quarters of a mile for elementary schools, one and one-half miles for middle (junior high) schools, and two miles for senior high schools.
- Elementary schools should be centrally located in residential neighborhoods, preferably on a collector street, so children need not cross major streets or railroads. Junior and especially senior high school facilities generate more traffic than elementary schools, and should be located near a major street, to eliminate heavy traffic penetration of residential neighborhoods.
- This Plan Update recommends that all school sites be of adequate size to provide plenty of indoor and outdoor recreational as well as educational needs.

POPULATION PROJECTIONS

Population projections for school age students in Kenton County are based on the 1990 US Census of Population and are prepared by the Kentucky State Data Center,

TABLE 6-4
RECOMMENDED SCHOOL - PARK STANDARDS

ITEM	ELEMENTARY SCHOOL-PARK	MIDDLE/JUNIOR HIGH SCHOOL PARK	SENIOR HIGH SCHOOL-PARK
Grades Served	K - 6	7 - 9	10 - 12
Desirable School Service Radius/ Reasonable Maximum Walking Distance	3/4 Mile	1 - 1/2 Miles	2 Miles
Service Area	Neighborhood	Community	Community
Location (with respect to streets)	Should be located on a collector street	Should be located on or within one block of an arterial street	Should be located on or within one block of an arterial street
Minimum Site Acreage ⁽¹⁾	10 acres, plus one additional acre for each 100 or fraction of 100 pupils of forecasted enrollment	20 acres, plus one additional acre for each 100 or fraction of 100 pupils of forecasted enrollment	30 acres, plus one additional acre for each 100 or fraction of 100 pupils of forecasted enrollment
Desirable School Site Size ⁽¹⁾	14 - 16 acres	25 - 35 acres	40 - 50 acres
Recreation Area ⁽²⁾	9 - 11 acres	17 - 24 acres	27 - 33 acres
Students per Teacher ⁽³⁾	K - 3: 24 4 - 6: 28	31	31
Enrollment Per School	300 - 600	450 - 900	750 - 1,500
Desirable School Service Radius/ Reasonable Maximum Walking Time ⁽⁴⁾	1/2 hour	1 hour	1 hour

(1) Based on enrollment range per school.

(2) Assumes approximately 1/3 of site will be used for the building, parking, and landscaping, and approximately 2/3 of the site is used for recreation and outdoor education.

(3) Figure taken from "School Facilities Manual, 702 KAR 1:001E", July 1991.

(4) In sparsely populated areas, longer travel times may be reasonable.

SOURCE: Adapted, in part, from "Guide For Planning Educational Facilities", Council of Educational Facility Planners International, Columbus, Ohio, 1976.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

RECOMMENDATIONS

University of Louisville (designated agency for the state of Kentucky to prepare population projections). These projections indicate that the school age population, ages 5 through 19 ([See Table 4-6 - Population Projection by Age Group](#)), expressed as a percent of total population, in Kenton County, will continue to decline to the years 2010 and 2020. In 1990, these groups represented just over 22 percent of the total population in Kenton County. By the year 2010, these same groups are projected to represent just under 20 percent of the total population; and, by the year 2020, are expected to represent approximately 19 percent of the total population of the county.

The number of school age population, as previously mentioned, will continue to decline as compared to the percentage of total population. This trend indicates that total school enrollment on a county-wide basis will also continue to decline. Increased school enrollment, however, will continue within areas where new residential development is occurring. This growth will primarily be in areas served by the Kenton County School District.

The 1996 Plan Update of the School-Park Plan, similar to the 1991 Plan Update, is based on the following premises:

- The School-Park Plan utilizes the following educational levels: elementary schools (serving kindergarten through fifth grade); junior high/middle schools (serving grades six through eight); and senior high schools (serving grades nine through twelve).
- The School-Park Plan is based upon population projections for the whole county. Although existing school district boundaries will probably not change, the plan recommends cooperation between school districts that would result in more efficient use of facilities.

Existing school systems are recommended to continue to provide educational services in Kenton County; however, as conditions change and alternatives are sought to better handle educational needs, an area-wide approach may be most efficient. This Plan Update, while supporting existing conditions, is based on the county-wide provision of educational services.

- It is recommended that schools operate below their maximum capacity levels, where possible, in order to be able to provide special programs that might be desirable or even required by State or Federal law. This may include special education programs for students with learning disabilities, or behavior disorders which require considerably fewer students in a class than general classrooms. Discussions with local school officials indicated that there is a trend in education to provide additional special education programs (e.g., for the gifted and talented). Thus, if schools can operate under their capacity levels, they can maintain flexibility and adjust to changing conditions and new requirements.

- Experience indicates that when acquiring undeveloped land for new school sites, the entire acreage anticipated to be needed for future expansion should be acquired at the time of initial purchase, if possible. Otherwise, land around the site soon becomes developed and cost of acquisition becomes prohibitive. Due to the rapid pace of development within areas of the county, this Plan Update encourages all school boards to pro-actively project school needs and purchase land necessary for school construction accordingly.

Effort should also be made to achieve maximum utilization of existing school facilities and sites, in recognition of the high costs involved in purchasing land and constructing new schools, particularly in the older urbanized areas.

- School sites should be integrated with planned park and recreational facilities whenever possible. This concept is an integral part of the recommended standards included herein.

This combination of local service type facilities provides substantial benefits since school and park facilities are oriented to similar service area populations. Combining these facilities eliminates duplication of separate facilities. It also provides a more aesthetically desirable site for school buildings, and can result in a savings to the taxpayer. Such a program can be accomplished even within today's jurisdictional limitations if the objectives of both organizations, city and school district, are the same.

For example, the school district could purchase a smaller site, while the city could acquire adjacent land and not be required to construct certain types of facilities already available within the school plan (e.g., restrooms, storage areas, auditorium, gymnasium, resource library etc.).

- The neighborhood school concept continues to be a viable model for development of elementary schools in Kenton County. The intent of this concept is to locate schools conveniently within a neighborhood to enable students to walk to school whenever possible. While exact conformance to this concept may not be possible, elementary school locations can still seek to be easily accessible to the population they are intended to serve. Again, realization of such a concept which encourages people to walk, aims to achieve sustainable development goals.

The Recommended School - Park Plan is shown on Maps [6C](#) and [6D](#) -- they show, respectively, the Elementary, Middle, and Senior High School Park - Plans. [Table 6-1](#) provides a summary of the recommendations graphically illustrated on these maps.

The changes between the 1991 Plan Update and this update are as follows:

- The 1991 Plan Update recommended two middle schools. They were planned to be located in the northwest sector of the county to generally serve the Villa Hills, Fort Wright, Fort Mitchell, Ludlow, Bromley and Park Hills areas. The

construction of a new middle school by the Kenton County School District in the Independence area, along with an anticipated shift in service area boundaries when this school is opened, eliminates the need for two middle schools. This Plan Update recommends one middle school to serve this area.

- A new elementary school is also being constructed. This school is located in the Independence area on the same site as the previously mentioned middle school. This school will accommodate students within areas now served by the Beechgrove, Taylor Mill, and Kenton Elementary schools.

RECREATION AND OPEN SPACE

In Northern Kentucky, population growth is increasing the demand for residential, commercial, and industrial development. This fact makes it more important than ever to assure that sufficient land is reserved for recreation, including parks and other open space, in order to provide a high quality of life for families and individuals. In Kenton County, the need for additional land for recreation and open space has been identified as a top priority by citizens attending the “Town Meeting”, which began the process of preparing this Plan Update. Other groups that evaluated the future recreation and open space needs of the community arrived at a similar conclusion.

Recreation facilities, including parks, are owned or controlled by the public, and made available to the entire population for both active and passive recreation. Active recreation are those functions which generally fall into the category of sports, games, or play activities. Passive recreation involves functions such as walking, hiking, bird watching, and picnicking, which are generally less physically strenuous.

Open space needs are not as easily addressed as recreation facilities, particularly since recommended guidelines do not seem to exist in regards to how many acres should exist in an area. Open space can be either privately or publicly owned property, and is generally either undeveloped or developed in such a manner as to retain significant areas of open, or “green space”. For example, undeveloped hillsides and stream valleys, golf courses and cemeteries are all considered open space. Although open space needs are not easily quantified, such areas are important for our community and form an integral part of our natural landscape. They provide the aesthetic beauty that defines Northern Kentucky and serve as important environmental areas such as floodplains, wildlife habitats and buffer zones from more intense development.

EXISTING PUBLIC PARK AND RECREATION FACILITIES

[Table 6-5](#) compares existing public park and recreation facilities, by type of park, for 1985, 1990, and 1995. The analysis of this information for 1995 was conducted using NKAPC’s Geographic Information System (GIS) database and mapping for the first time. The GIS provides a more accurate assessment of existing acres than methods previously used, and in some cases this resulted in a discrepancy in existing acres between 1990 and 1995. For example, between 1990 and 1995, there was an

TABLE 6 - 5
RECREATION AND OPEN SPACE - EXISTING PUBLIC FACILITIES
KENTON COUNTY
1985, 1990, AND 1995

TYPE OF PARK	1985		1990		1995	
	NUMBER	ACRES	NUMBER	ACRES	NUMBER	ACRES
Neighborhood Parks	42	110	43	104	43	120
Community Parks	12	223	14	265	16	284
Area-Wide Parks	4	1,257	4	1,481	5	1,605
TOTAL	58	1,590	61	1,850	68	2,009

SOURCE: Surveys conducted by Northern Kentucky Area Planning Commission.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

increase in neighborhood park acreage, from approximately 104 acres to 120 acres, which is a difference of 16 acres. Some of the 16 acre increase was from acreage added to existing parks, but some was a result of the more accurate GIS data.

Table 6-6 is the inventory and plan for existing park and recreation facilities in Kenton County. This table provides information regarding acreage expansion and other projected changes for existing public and private recreation facilities. Maps 6E and 6F show the locations of the public and private recreation and open space facilities described on Table 6-6.

Since the adoption of the 1991 Plan Update, the following changes have occurred to existing public recreation and open space facilities.

- The Mills Road Park, the first major park facility in the southern portion of the county, was constructed during 1995 and 1996. This park contains 100 acres (see Map No. 109, Table 6-6 and Map 6F) and facilities include - baseball, basketball, volleyball, soccer, a fishing lake, walking trails, a tot lot, and other support facilities. This park will be officially opened for general use in Spring 1997.
- Freedom Park in the city of Edgewood is being reconstructed after the completion of the Thomas More Parkway extension (see Map I.D. No. 41, Table 6-6 and Map 6F).

RECOMMENDED RECREATION AND OPEN SPACE PLAN

Basic Goals and Objectives, previously stated in Chapter II under the heading of "Recreation and Open Space", are:

"To provide an adequate amount of variety of recreational opportunities to satisfy the full range of needs of the population." -- "Concerted effort should be made to provide a wide variety of types of recreational facilities programs to meet the year round desires and needs of various age and interest groups."

"To provide basic recreation and open space facilities and programs which are conveniently located and accessible to the population." -- "Effort should be made to provide for recreation and open space facilities which are both region oriented, containing a variety of active and passive recreational pursuits, and neighborhood oriented, which are primarily aimed at satisfying the day-to-day desires and needs of immediately surrounding residents."

"To achieve the goals of this element without unduly disrupting the goals of other elements." -- "Effort should be made to ensure the incorporation of design for recreation and open spaces as an integral part of emerging urban development or redevelopment. Such effort should result in recreation and open space areas which complement and enhance surrounding development"

TABLE 6-6
INVENTORY AND PLAN FOR EXISTING PARK AND RECREATION FACILITIES
KENTON COUNTY
1995

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
1	Bromley Play-ground	Shelby Street, Bromley	Public	N	Basketball, bleachers, playground equipment	1.4	--	--
2	Ball Park	Shelby Street, Bromley	Public	N	Baseball, bleachers	0.4	--	--
3	Goebel Park / Pool Complex	8th and Dalton Streets, Covington	Public	C	Swimming pool, bike trail, tennis court, play area, basketball, benches, parking lot	13.6	--	Site to be expanded to include Dalton Street Tot Lot.
4	Lewis and Baker	Lewis and Baker Streets, Covington	Private	--	Basketball	0.1	--	--
5	TSI	Boron Avenue, Covington	Private	--	Baseball	2.5	--	--
6	Dalton Street Tot Lot	7th and Dalton Streets, Covington	Public	N	Play area, playground equipment, shelter	0.4	--	Site to be combined with Goebel Park.
7	Annie Hargraves Park	10th and Robbins Streets, Covington	Public	N	Basketball, play area, playground equipment, shuffle board, picnic tables	0.4	--	--
8	Jacob Price Homes Playlot	11th and Prospect Streets, Covington	Public	N	Playground equipment	0.3	--	--
9	Father Hanses Park	11th and Hermes Streets, Covington	Public	N	Playground equipment, benches, picnic tables	0.2	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
10	13th Street Playlot	13th Street at Linden Grove Cemetery, Covington	Private	--	Playground equipment	0.1	--	--
11	15th Street Playlot	15th and Eastern Avenue, Covington	Public	N	Baseball, shelter house, slide	1.4	3.1	Site to connect with the proposed riverfront park link along the Licking River; to be further developed according to recommended park standards.
12	Clayton Meyer Playlot	Thomas and Glenway, Covington	Public	N	Playground equipment, picnic tables	0.3	2.2	Site to be developed to provide active recreation facilities for neighborhood and Sixth District School.
13	19th Street Playlot	19th and Oakland, Covington	Public	N	Baseball, basketball	2.1	--	Site is to connect with the proposed riverfront park link along the Licking River.
14	Benton Road Field	Benton and Highland, Covington	Public	N	Baseball field	0.9	--	Site to be combined with Glenn O. Swing Elementary School-Park.
15	F.O.P.A.	43rd Street, Covington	Public	C	Baseball fields, grandstands, parking lots	30.5	31.5	Covington landfill site; to be developed as an area-wide park and to be connected to the proposed riverfront park link along Banklick Creek.

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
 SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
16	Youth Sports Complex	43rd Street, Covington	Public	C	Soccer fields, playground equipment	Connected w/ F.O.P.A.	--	--
17	Twin Oaks Country Club	43rd Street, Covington	Private	--	Clubhouse, 18 hole golf course	154.1	--	--
18	Rosedale Park	Virginia Street, Covington	Public	C	Bathhouse, swimming pool, concessions, baseball, tennis, basketball, shelters, play area, parking lots	21.9	--	Site is to connect with the proposed riverfront park link along the Licking River.
19	City Heights Playlot	End of Benton Street, Covington	Public	N	Playground equipment	0.3	--	--
20	Kenton County Boys Club	West 26th Street near Madison, Covington	Private	--	Baseball field; indoor: gym, pool, and basketball; library; game, art, ceramics and photography rooms	4.1	--	--
21	Meinken Field	Eastern and James Avenues, Covington	Public	C	Baseball, stands, playground equipment	8.6	--	Continue park for ball fields; site to connect with the proposed riverfront park link along Licking River.
22	30th and Decoursey Playlot	30th and Decoursey, Covington	Public	N	Baseball, basketball, play area, playground equipment	1.6	4.1	Site to be expanded to provide for additional active recreational facilities.
23	Ashland and Madison Playground	Ashland and Madison, Covington	Public	N	Baseball, basketball, tennis courts, swings	2.0	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
 SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
24	35th Street Playlot	35th Street and Carlisle Avenue, Covington	Public	N	Basketball, swings	0.5	--	--
25	Taylor Mill Swim Club	Taylor Mill Road, Covington	Private	--	Swimming pool, bath-house, concessions, tennis courts	27.6	--	--
26	47th Street Playground	47th Street, Covington	Public	N	Baseball, basketball	5.2	--	Site to be connected with the proposed riverfront park link along Banklick Creek.
27	VFW	47th and Carol Street, Covington	Private	--	Shelter house, fishing lake, picnic tables	14.1	--	--
28	Parkway Avenue Playground	Parkway Avenue, Covington	Public	N	Basketball, general games area, swimming pool	10.4	--	--
29	Devou Park	Northwest section, Covington	Public	A	Lake, museum, picnic tables, amphitheater, playground, fitness trail, basketball, hiking, concessions, comfort station, 18 hole golf course, concert bowl	652.0	--	Access to public area to be improved.
30	Goebel Park (Old) Main Strasse	5th and Philadelphia Streets, Covington	Public	C	Baseball, benches, play area, playground equipment, shelters, bell tower, fountain, benches	--	--	<u>On site of Goebel Park / Pool Complex. Map ID number 3.</u>

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
31	George Rogers Clark Park	Riverside and Garrard Streets, Covington	Public	N	Benches, fountain, river view walkway	0.6	--	This park is to continue as a passive recreation park facility adjacent to the Ohio Riverfront.
32	Randolph Park	8th and Greenup Streets, Covington	Public	C	Basketball, baseball, volleyball, playground equipment, bathhouse, swimming pool, picnic area, benches	4.0	--	Site is to connect with the proposed riverfront park link along the Licking River.
33	City Park	Avon Drive, Crescent Park	Public	N	Open space	4.0	--	--
34	Summit Hills Country Club	236 Dudley Road, Crestview Hills	Private	--	Clubhouse, 18 hole golf course, concessions, swimming pool, tennis	116.8	--	--
35	Unnamed lake	Between Parkway Drive and Rosemont Avenue, Crestview Hills	Private	--	Scenic lake	4.6	--	--
36	Thomas More College	Thomas More College, Crestview Hills	Private	--	Lake, amphitheater, tennis, soccer, basketball, baseball, football, volleyball	N/A	--	--
37	Lookout Farms	Lookout Farms Drive, Crestview Hills	Private	--	Swimming pools, clubhouse, tennis, trails, lakes, basketball	2.5	--	--
38	Four Seasons Sports Country Club	Thomas More Parkway, Crestview Hills	Private	--	Indoor/outdoor tennis, swimming, nautilus, racquetball, indoor walking trail, basketball	11.2	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area-Wide Park
 SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
39	Victory Park	Laurel Ridge Drive, Edgewood	Public	N	Swings, basketball	25.5	--	Develop additional passive recreation area.
40	Winding Trails	Edgemont Court, Edgewood	Private	--	Open space	7.0	--	--
41	Edgewood Freedom Park	Dudley Road at Thomas More Parkway, Edgewood	Public	N	Proposed facilities include: baseball, soccer, basketball, clubhouse, playground equipment	10.2	16.0	<u>Currently being developed</u>
42	Brookwood Country Club	Fair Oaks Lane, Edgewood	Private	--	Clubhouse, swimming pool, tennis courts	10.4	--	--
43	Presidents Park	Dudley Road, Edgewood	Public	C	Picnic area, shelters, tennis, restrooms, clubhouse, playground equipment, baseball, volleyball, basketball, soccer, trails	20.1	--	--
44	Terrill Park	End of Park Avenue, Elsmere	Public	N	Basketball, playground equipment, picnic tables	1.7	--	Site to be combined with Covered Bridge Park.
45	Capitol Park	Capitol Avenue, Elsmere	Public	N	Basketball, playground equipment, picnic tables	0.4	--	Site to be combined with Arnett Elementary School-Park.
46	Covered Bridge Park	E. Covered Bridge, Elsmere	Public	N	Tennis, basketball, volleyball, playground equipment, shelters, picnic tables	6.2	--	Site to be linked with Terrill Park.

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
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Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
47	Woodside Park	Bedlinger and Lytle Avenues, Elsmere	Public	N	Baseball, basketball, playground equipment	6.2	--	Site to be upgraded to provide for additional active recreational facilities.
48	Fox Field	End of Fox Street, Elsmere	Private	--	Baseball field	4.6	0.4	Field to be acquired from private ownership to provide baseball facilities to the neighborhood under public ownership.
49	Rainbow Park	Stevenson Road and Rainbow Terrace, Erlanger	Public	N	Shelter, picnic tables, basketball, playground equipment	1.1	--	--
50	Mini - Park	Across from Perimeter Drive at Stevenson Road, Erlanger	Public	N	Benches	0.7	--	--
51	Stetter Park	Jacqueline Drive, Erlanger	Public	N	Playground equipment, basketball	3.4	--	--
52	Pleasure Isle	Madison Pike, Erlanger	Private	--	Swimming pool, picnic area, shelter, sun deck, concessions	15.3	--	--
53	Spring Valley	Ridgewood Road, Erlanger	Public	N	Baseball, soccer, walking trails	3.7	--	--
54	Misty Creek Park	Creekstone Circle, Erlanger	Public	N	Basketball, playground equipment	1.1	--	Site to be linked to the Ohio- Licking - Banklick Creek park link.

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Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
55	Woodward Playlot	Woodward Avenue, Erlanger	Public	N	Basketball, playground equipment, picnic tables	0.4	--	--
56	Triple "E" Swim Club	Watson Road, Erlanger	Private	--	Swimming and wading pools, concessions, shuffleboard, table tennis, basketball, bathhouse	1.8	--	--
57	Locust Playground	Locust Street, Erlanger	Public	N	Basketball, playground equipment	1.1	--	--
58	Silver Lake Park	Division Street, Erlanger	Public	C	Tennis, basketball, ball fields, soccer fields, volleyball, picnic area, playground equipment	11.8	--	--
59	Center Street Park	Center Street, Erlanger	Public	N	Playground equipment	0.3	1.7	Site to be expanded to provide for additional recreational facilities and a park link from Locust Street to Silver Lake Park.
60	Railroad Park	Between railroad tracks and Crescent Avenue, Erlanger	Public (leased by city)	N	Shelter, picnic area, museum, shuffleboard	3.6	--	
61	Putt-Putt Golf	3139 Dixie Highway, Erlanger	Private	--	Two miniature golf courses	N/A	--	

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Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
62	Erlanger / Elsmere Board of Education	Graves Avenue, Erlanger	Public	N	Year-round recreation programs	N/A	--	Site is combined with Lloyd High School-Park
63	Fort Mitchell Country Club	Fort Mitchell Avenue, Fort Mitchell	Private	--	Clubhouse, 9-hole golf course, swimming pool	72.8	--	--
64	Beechwood Swim Club	Beechwood Road, Fort Mitchell	Private	--	Swimming pool, bath-house, concessions, basketball, tennis, jungle gym	6.3	--	--
65	General Ormsby Mitchell City Park	Grandview Drive, Fort Mitchell	Public	C	Basketball, baseball, soccer, tennis, volleyball, picnic area	7.7	--	--
66	Unnamed Park	Iris Avenue, Fort Mitchell	Public	N	Benches	0.6	--	--
67	Lookout Heights Civic Club	Park Road, Fort Wright	Private	--	Playground equipment, field	1.7	--	--
68	Fort Wright Civic Club	Kennedy Road, Fort Wright	Private	--	Basketball, baseball, playground equipment	2.6	--	--
69	South Hills Civic Club	Henry Clay and Bluegrass Avenues, Fort Wright	Private	--	Baseball, meeting hall, playground equipment	2.2	--	--
70	Bluegrass Swim Club	Bluegrass and Highland Avenues, Fort Wright	Private	--	Swimming pool, bath-house, concessions	4.6	--	--

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 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
71	Fort Wright Golf Driving Range	Madison Pike, Fort Wright	Private	--	Driving range	14.1	--	--
72	Central Church of the Nazarene	Pieck Drive, Fort Wright	Private	--	Basketball	3.0	--	--
73	City Building Site	Kyles Lane, Fort Wright	Public	C	Playground equipment	5.1	--	--
74	Highland Avenue Property	Highland Avenue, Fort Wright	Public	C	Vacant, wooded hillside	16.0	--	<u>Potential trail area.</u>
75	Saint Agnes School	Sleepy Hollow Road, Fort Wright	Private	--	Baseball, basketball, soccer	5.0	--	--
76	Park Road Park	Park Road, Fort Wright	Public	N	Playground equipment	1.1	--	--
77	Beechgrove Recreation Center	Beechgrove Drive, Independence	Private	--	Swimming and wading pools, tennis, basketball, clubhouse	3.0	--	--
78	Sterling Staggs Park (City Park)	Madison Pike and Sylvan Drive, Independence	Public	N	Basketball, baseball soccer, shelters, playground	6.0	--	--
79	Nick's Grove Fishing Lake	Taylor Mill Road, Independence	Private	--	Fishing lake	8.5	--	--

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 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
80	Unnamed Ballfields	Don Victor Drive and Stephens Road, Independence	Private	--	Baseball fields	14.7	--	Purchase for a public park.
81	Taylor Mill Boosters	4790 Oliver Road, Independence	Private	--	Six baseball fields, concession stand, restrooms	15.0	--	--
82	Secluded Valley Fishing Lake	Lambs Ferry Road, Kenton County	Private	--	Fishing lake, picnic area, restaurant	10.4	--	--
83	R.A. Jones Ballfield	Crescent Springs Road, Kenton County	Private	--	Baseball field	1.5	--	--
84	Dry Creek Harbor	1096 Lower River Road, Kenton County	Private	--	Launching ramp, boat shelter, building	2.5	--	--
85	Banklick Woods Park	Independence Station Road, Kenton County	Public	A	Walking trails, shelters, tot lots, picnic tables, volleyball, baseball, soccer, playground equipment	78.0	--	--
86	Doe Run Lake	Bullock Pen Road, Kenton County	Public	A	Canoe rental, walking trails, fishing	182.6	--	Site to be linked to the Ohio-Licking-Banklick Creek park link.
87	Running Creek Apartment Clubhouse	Bromley-Crescent Springs Road, Kenton County	Private	--	Basketball, tennis, pool, clubhouse	0.5	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
 SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
88	Kenton County Golf Courses	3908 Richardson Road, Kenton County	Public	A	54-holes of golf (3 golf courses), clubhouse	592.3	124.0	Site to be expanded to connect with the proposed riverfront park link system.
89	Pioneer Park	Madison Pike, Kenton County	Public	C	Basketball, baseball, tennis, soccer, picnic area, shelter house, playground equipment	42.5	--	Park is part of the proposed riverfront park link along Banklick Creek.
90	Richardson Road Park	Richardson Road, Kenton County	Public	C	Basketball, baseball, bleachers, tennis, shelter, picnic tables, playground equipment	20.5	--	--
91	Beechgrove	Birnam Drive, Kenton County	Private	--	Pool, bathhouse, tennis	1.6	--	--
92	Bowman Field	Locust Pike and L & N Railroad, Kenton County	Public	N	Concessions, baseball fields	4.0	--	--
93	Kenton Game and Fish Association	Locust Pike, Kenton County	Private	--	Skeet shooting	41.3	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
 SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
94	Locust Pike Park	Locust Pike, Kenton County	Public	C	Fishing, camping, boat ramp, picnic area, play-ground, basketball	35.0	--	Site to be linked to the proposed Licking River scenic view park link.
95	New Latonia Gun Club	Stephens Road, Kenton County	Private	--	Lake; trap and skeet shooting	15.0	--	--
96	Valleyview Fishing Lake	Decoursey Pike, Kenton County	Private	--	Restaurant, picnic area, fishing lake	17.4	--	--
97	Ryland Lakes Country Club	Decoursey Pike, Kenton County	Private	--	Clubhouse, restaurant, golf course, swimming lake, tennis, shuffle board, basketball, swings	406.0	--	--
98	Kenton County Fairgrounds	Taylor Mill Road, Kenton County	Private	--	Barns, track, grand-stand, concessions	13.9	--	--
99	Depner Fishing Lake	Bramlage and Wilson Roads, Kenton County	Private	--	Fishing lake	10.1	--	--
100	Barrel Lake	Percival Road, Kenton County	Private	--	Fishing lake	45.1	--	--
101	Walton Woods Reservoir	Percival Road, Kenton County	Public	C	Reservoir, picnic area, shelter	43.5	--	--
102	Redmans Fishing Lake	Decoursey Pike, Kenton County	Private	--	Fishing lake	4.3	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
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Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
103	White Villa Country Club	Decoursey Pike, Kenton County	Private	--	Swimming and fishing, beach, clubhouse, volleyball, basketball	113.0	--	--
104	Kenton Lakes Fishing Club	Decoursey Pike, Kenton County	Private	--	Fishing lakes, picnic tables, basketball, restaurant	49.0	--	--
105	Thornhill Lake	Decoursey Pike, Kenton County	Private	--	Fishing lake	--	--	<u>Shares Property with Thornhill Dragstrip</u>
106	Thornhill Dragstrip	Decoursey Pike, Kenton County	Private	--	Dragstrip, picnic area, concessions, playfield, basketball	179.8	--	--
107	Mullins Hunting Preserve	Eads Road, Kenton County	Private	--	Open area, hunting preserve	273.4	--	--
108	Community Park	Eads Road, Kenton County	Private	--	Baseball, concessions	75.3	--	--
109	Mills Road Park	Mills Road, Kenton County	Public	A	Baseball, basketball, sand volleyball, soccer, bleachers, concessions, foot-ball shelters, fishing lake, walking trails, tot lot, parking, restrooms	100.0	--	<u>Scheduled to open Spring 1997. Future facilities include an open air amphitheater and a community building.</u>
110	Unnamed lake	Lakeside Drive, Latonia Lakes	Private	--	Fishing lake	4.2	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
 SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ COMMENTS
						EXISTING	ADDITIONS	
111	Caple Park	Montclair and Post Place, Ludlow	Public	N	Baseball, basketball, fountain, picnic tables, playground equipment	1.2	--	Maintenance of existing facility is to be encouraged.
112	Jackson Park	Montclair and West Streets, Ludlow	Public	N	Baseball, soccer, playground equipment, picnic tables	0.8	--	Maintenance of existing facility is to be encouraged.
113	Ludlow - Bromley Swim Club	Sandbank Road and Stokesay, Ludlow	Private	--	Swimming and wading pools, concessions, locker room, picnic tables, badminton, table tennis, shuffle board, basketball, horseshoes, soccer	6.4	--	--
114	Albert S. Ludlow Memorial Park	W. Elm Street, Ludlow	Public	C	Basketball, baseball, grandstand, fountain, veterans memorial, animal rides, tennis, picnic tables, shelter house, playground	7.1	17.9	Site to be expanded to provide for additional active and passive recreational facilities
115	Ludlow - Bromley Yacht Club	860 Elm Street, Ludlow	Private	--	Boat docks, carry-out bar, pier, fishing	3.1	--	--
116	Carlisle Park	Sleepy Hollow Road, Ludlow	Private	--	Baseball field	4.6	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park

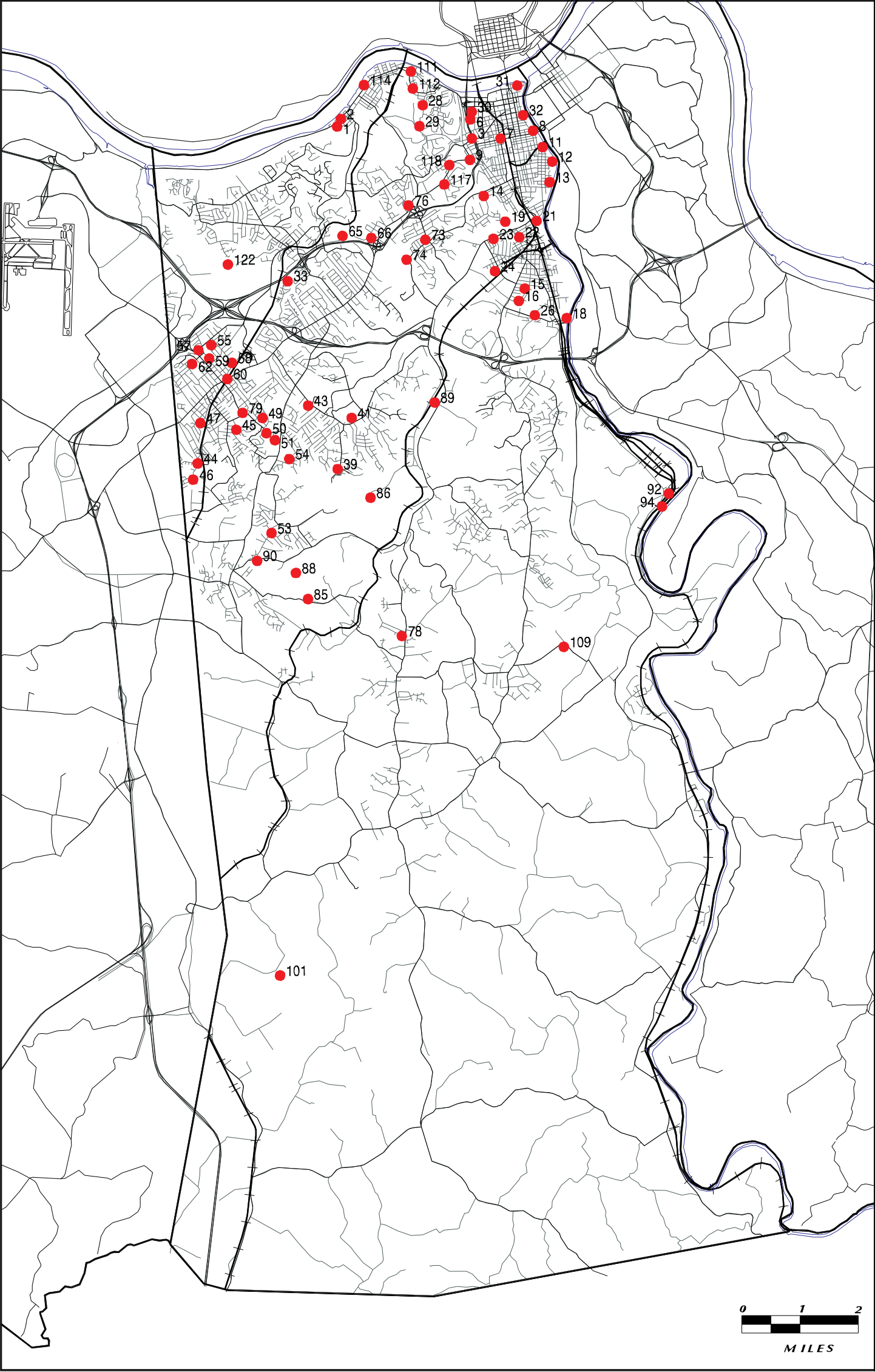
SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

Table 6-6

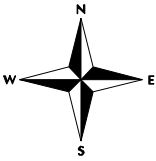
MAP ID	FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE ⁽¹⁾	FACILITIES	ACRES		RECOMMENDATIONS/ <u>COMMENTS</u>
						EXISTING	ADDITIONS	
117	Tot Lot	Amsterdam and Arlington Roads, Park Hills	Public	N	Playground equipment, picnic tables	0.8	--	--
118	Trolley Park	Amsterdam Road, Park Hills	Public	N	Playground equipment, picnic tables	3.4	--	--
119	Prospect Point Recreation Center	Prospect Point, Villa Hills	Private	--	Swimming and wading pools, tennis, basketball, volleyball, ping-pong, lake, clubhouse, jungle gym	1.5	--	--
120	Tom Braun Ballfields	Amsterdam Road east of Collins Road, Villa Hills	Private	--	Baseball, soccer	10.0	--	--
121	Franzen Field	739 Rogers Road, Villa Hills	Private	--	Soccer, baseball, playground equipment, picnic area	27.8	--	--
122	Harry Rigney Park	Entrance off of Rollingwood, Villa Hills	Public	N	Basketball, volleyball, picnic area, swing set	3.6	--	--
123	Elementary School-Parks	See Table 6-1	Public	N	See Table 6-1	47.9	2.1	--
124	Middle/Junior High School-Parks	See Table 6-1	Public	C	See Table 6-1	18.1	13.6	--
125	Senior High School-Parks	See Table 6-1	Public	C	See Table 6-1	37.4	--	--

(1) N - Neighborhood Park, C - Community Park, A - Area Wide Park
 SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.



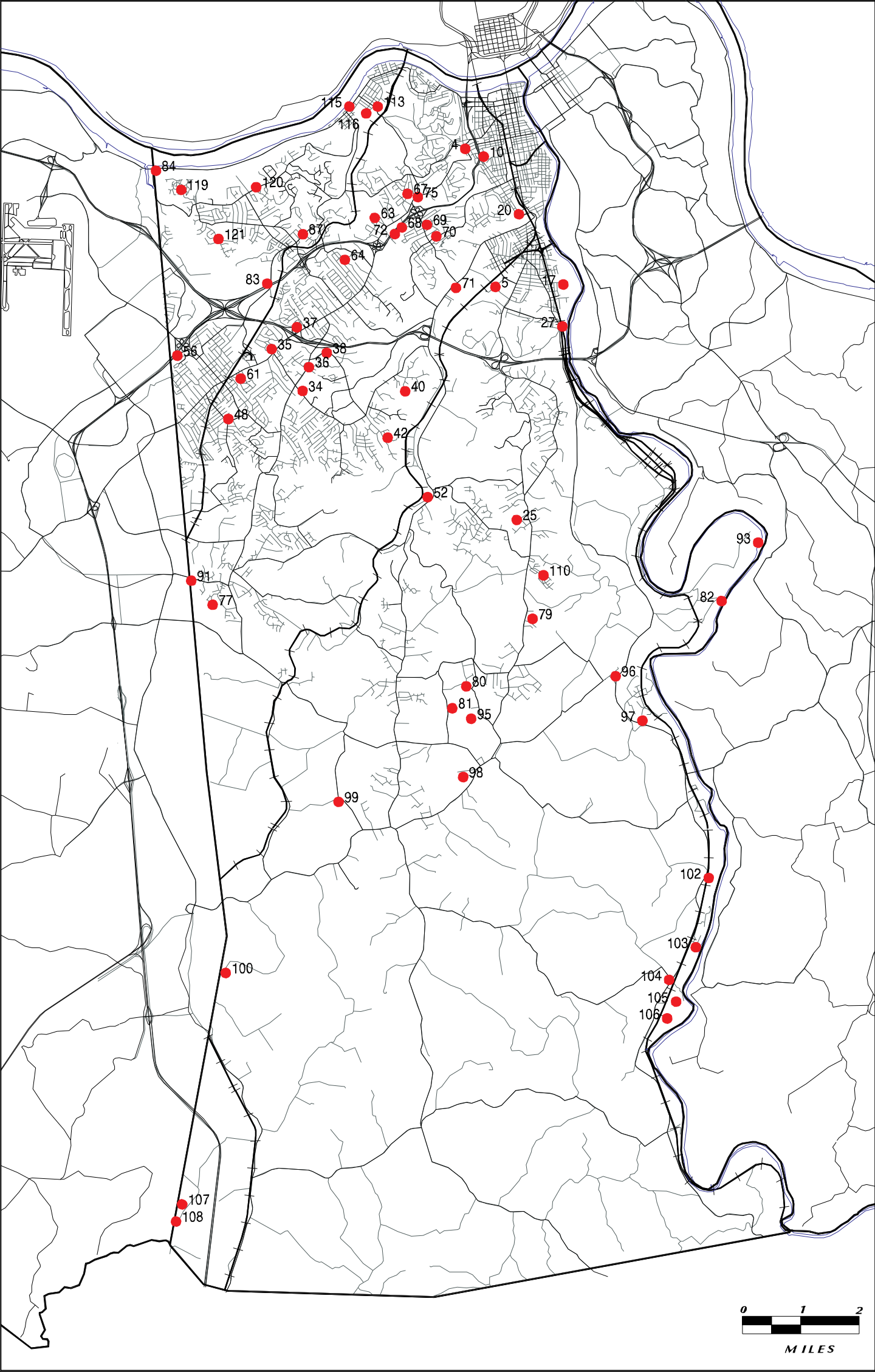
MAP ID NO.	PARK NAME
1	Bromley Playground
2	Ball Park
3	Goebel Park / Pool Complex
6	Dalton Street Tot Lot
7	Annie Hargraves Park
8	Jacob Price Homes Playlot
9	Father Hanses Park
11	15th Street Playlot
12	Clayton Meyer Playlot
13	19th Street Playlot
14	Benton Road Field
15	F.O.P.A.
16	Youth Sports Complex
18	Rosedale Park
19	City Heights Playlot
21	Meinken Field
22	30th and Decoursey Playlot
23	Ashland and Madison Playground
24	35th Street Playlot
26	47th Street Playground
28	Parkway Avenue Playground
29	Devou Park
30	Goebel Park (Old) MainStrasse
31	George Rogers Clark Park
32	Randolph Park
33	City Park
39	Victory Park
41	Edgewood Freedom Park
43	Presidents Park
44	Terrill Park
45	Capitol Park
46	Covered Bridge Park
47	Woodside Park
49	Rainbow Park
50	Mini-Park
51	Stetter Park
53	Spring Valley
54	Misty Creek Park
55	Woodward Playlot
57	Locust Playground
58	Silver Lake Park
59	Center Street Park
60	Railroad Park
62	Erlanger / Elsmere Board of Education
65	General Ormsby Mitchell City Park
66	Unnamed Park
73	City Building Site
74	Highland Avenue Property
76	Park Road Park
78	Sterling Staggs Park
85	Banklick Woods Park
86	Doe Run Lake
88	Kenton County Golf Courses
89	Pioneer Park
90	Richardson Road Park
92	Bowman Field
94	Locust Pike Park
101	Walton Woods Reservoir
109	Mills Road Park
111	Caple Park
112	Jackson Park
114	Albert S. Ludlow Memorial Park
117	Tot Lot
118	Trolley Park
122	Harry Rigney Park

SEE TABLE 6-6 FOR MORE INFORMATION.



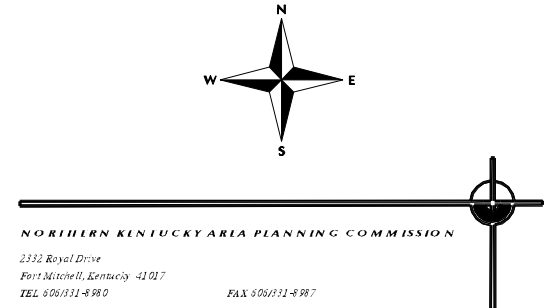
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MAP ID NO.	PARK NAME
4	Lewis and Baker
5	TSI
10	13th Street Playlot
17	Twin Oaks Country Club
20	Kenton County Boys Club
25	Taylor Mill Swim Club
27	VFW
34	Summit Hills Country Club
35	Unnamed Lake
36	Thomas More College
37	Lookout Farms
38	Four Seasons Sports Country Club
40	Winding Trails
42	Brookwood Country Club
48	Fox Field
52	Pleasure Isle
56	Triple "E" Swim Club
61	Putt-Putt Golf
63	Fort Mitchell Country Club
64	Beechwood Swim Club
67	Lookout Heights Civic Club
68	Fort Wright Civic Club
69	South Hills Civic Club
70	Bluegrass Swim Club
71	Fort Wright Golf Driving Range
72	Central Church of the Nazarene
75	Saint Agnes School
77	Beechgrove Recreation Center
79	Nick's Grove Fishing Lake
80	Unnamed Ballfields
81	Taylor Mill Boosters
82	Secluded Valley Fishing Lake
83	R.A. Jones Ballfield
84	Dry Creek Harbor
87	Running Creek Apartment Clubhouse
91	Beechgrove
93	Kenton Game and Fish Association
95	New Latonia Gun Club
96	Valleyview Fishing Lake
97	Ryland Lakes Country Club
98	KentonCounty Fairgrounds
99	Depner Fishing Lake
100	Barrel Lake
102	Redmans Fishing Lake
103	White Villa Country Club
104	Kenton Lakes Fishing Club
105	Thornhill Lake
106	Thornhill Dragstrip
107	Mullins Hunting Preserve
108	Community Park
110	Unnamed Lake
113	Ludlow - Bromley Swim Club
115	Ludlow - Bromley Yacht Club
116	Carlisle Park
119	Prospect Point Recreation Center
120	Tom Braun Ballfields
121	Franzen Field

SEE TABLE 6-6 FOR MORE INFORMATION.



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MAP OF

1996 COMPREHENSIVE PLAN KENTON COUNTY, KENTUCKY

EXISTING PRIVATE RECREATION FACILITIES

• Private Recreation Facilities

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rather than take on the appearance of appendages added out of necessity. Constant effort should be made to protect recreational areas from intrusion of other types of uses so that they may continue to serve their intended function adequately."

Recreation and Open Space Needs

[Table 6-7](#) lists the standards, published by the National Recreation and Park Association, used to evaluate existing park and recreation needs for this Plan Update. In this Plan Update, the category of "Area-wide Park" combines the standards for both Metropolitan Park and Regional Park. Application of the standards listed in [Table 6-7](#) indicates that a total of approximately 3200 acres of recreation land area are needed to meet the projected 2020 population of Kenton County (162,000 persons). [Table 6-8](#) compares recreation and open space needs for the year 2020, by park type, with proposed expansion of existing parks.

While [Table 6-7](#) describes specific acreage needs for parks and recreation by type of park, the National Recreation and Park Association recommends that these should be used only as general guidelines, while each community should develop additional criteria, based on public input and other sources, to determine their specific needs. One difficulty with using these guidelines in Northern Kentucky is that there are many incorporated municipalities, each having jurisdiction over its own parks and recreation, while the guidelines are based on specified service areas, which when applied, would cross over municipal lines. Therefore, projecting recreation needs based on an area-wide approach is more useful.

Neighborhood and Community Parks - This Plan Update has projected the needs for neighborhood and community parks by generalized geographic areas based on projected year 2020 population ([See Table 6-8](#)). [Map 6G](#), Neighborhood Park Plan and [Map 6H](#), Community and Area-Wide Park Plan, indicate the general distribution of these park and recreation needs. [Table 6-9](#) provides detailed information for each geographic area identified on these maps, including generalized locations of proposed parks which have been identified within each area. Service areas depicted on these maps are not intended to be used as specific boundaries for development of new parks. Rather, they are intended to identify park needs based on population projections within these general areas.

Area-Wide Parks - These parks are the foundation of the "park-link system", which was first proposed in the 1972 Area-Wide Comprehensive Plan. The purpose of the park-link system is to connect existing and proposed parks, historic sites and districts, and scenic areas, with hiking trails, bike paths, and pedestrian walkways along streams and rivers. Much of the proposed system will traverse through natural wooded areas and will project the feeling of travel through secluded countryside, even though some of the system will be located near or within urban areas.

Several parts of this park-link system are complete such as Doe Run Lake and the Kenton County Golf Courses. Riverwalks/Bikeways are proposed along the Ohio and

TABLE 6 - 7
RECOMMENDED PARK AND RECREATION STANDARDS

TYPE OF FACILITY	POPULATION SERVED	ACRE PER 1,000 POPULATION	SIZE RANGE (ACRES)	SERVICE AREA	PREFERRED LOCATION	FACILITIES
Neighborhood Park	2,000 to 10,000	2.5	Minimum 5, up to 20	1/4 to 1/2 mile radius	Adjoining the public elementary school or located centrally within the neighborhood service.	Play apparatus area each for pre-school children and older children; paved multi-purpose courts; recreation center building; sports fields; senior citizens area; open or free play area; family picnic area; off-street parking
Community Park	10,000 to 50,000	2.5	20 minimum, up to 100	1/2 to 3 mile radius	Adjoining the public junior or senior high schools and located near thoroughfares for easy accessibility convenient to public transportation.	Play apparatus area each for pre-school children and for older children; multi-purpose courts; courts for tennis, horseshoes, shuffleboard; outdoor swimming pool or indoor/outdoor pool as part of school; center building; archery range; family picnic area; outdoor theater; landscaped area for open or free play; passive recreation; senior citizens complex; organized sports field for baseball, softball, football, volleyball, etc.; golf practice hole; ice rink; outdoor classroom space; off-street parking; night lighting for outdoor facilities; larger parks to include space for running track and major sports area for highly competitive sports by teams and organizations; accommodations should also be made to handle large number of spectators; adequate off-street parking.
Metropolitan Park	One for each 50,000	5.0	100 minimum, 250 to 1,000 desirable	Within 1/2 hour driving time	Depends on natural features available.	Provide quiet and contact away from congestion and noise; should take advantage of natural features such as lakes, ravines, cliffs, hills, views, scenic drives and paths, and undestroyed natural areas; commonly include: picnicking areas, boating, swimming facilities, nature center, nature hiking, riding trails, and some sports facilities on less formal basis than the community park; could include area for golf course, off-street parking.
Regional Park	Should be distributed throughout the region or larger metropolitan areas	20.0	250 minimum	Within 1 hour driving time	--	Facilities normally include campgrounds; picnic areas; nature centers; trail systems; water areas; fishing; golf courses; zoo or botanical gardens; band shells; outdoor theater; wildlife preserve; zoological park; off-street parking; and in some cases sports fields.

SOURCE: Adapted, in part, from "National Park Recreation and Open Space Standards, a publication of the National Recreation and Park Association, Washington, D.C., 1986.
PREPARED BY: Northern Kentucky Area Planning Commission.

TABLE 6 - 8
PROPOSED PARK NEEDS - 2020
KENTON COUNTY

PARK TYPE	APPROX. ACRES NEEDED	ACRES PROPOSED 1996 ⁽¹⁾	APPROX. ACRES DEFICIENT ⁽²⁾
NEIGHBORHOOD	285	78	207
COMMUNITY	120	91	29
AREAWIDE	2,838	3,359	(521)
TOTAL PARK LAND	3,243	3,528	236 ⁽³⁾

(1) For further information regarding proposed parks, refer to Table 6-9.

(2) Parenthesis indicate a surplus.

(3) The areawide surplus was not used in calculating this number since a surplus in one area does not make up for a deficiency in another.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

**TABLE 6 - 9
RECREATION AND OPEN SPACE AREA NEEDS - 2020
WITH PROPOSED PARKS**

GENERAL SERVICE AREA	POPULATION SERVED (2020)	ADDITIONAL ACRES ⁽¹⁾ NEEDED	PROPOSED NEW PARKS		
			MAP ID	PROPOSED ACRES	COMMENTS
NEIGHBORHOOD PARKS MAP 6G					
A	6,000	9.0	1	10.0	Site to be located near the intersection of Collins and Buttermilk Pike, Crescent Springs, and to provide for active and passive recreational facilities for the Crescent Springs/Villa Hills area.
B	4,000	9.0	2	5.0	
C	10,000	8.5			
D	7,000	11.5			
E	9,000	18.0			
F	7,000	13.5			
G	6,000	7.0	3	7.0	Site to be located within the Lookout Farm area, Crestview Hills, and to provide for active and passive recreational facilities to that area.
H	8,000	19.5	4	10.0	Site to be located at the end of Saint Anthony's Drive, Fort Wright, and to provide passive recreational facilities to that area.
I	8,500	16.0			
J	9,000	17.0			
K	7,000	15.0			
L	11,000	16.5			

(1) Parenthesis indicate amount of park land that is in excess of required standards.
 SOURCE: Northern Kentucky Area Planning Commission analysis based on OKI traffic zone data.
 PREPARED BY: Northern Kentucky Area Planning Commission.

Table 6-9

GENERAL SERVICE AREA	POPULATION SERVED (2020)	ADDITIONAL ACRES NEEDED ⁽¹⁾	PROPOSED NEW PARKS		
			MAP ID	PROPOSED ACRES	COMMENTS
M	10,500	(10.5)	5	12.7	Site to be located on Horsebranch Road, Crestview Hills, and to provide active and passive recreational facilities to that area.
N	4,000	9.0			
O	4,000	10.0			
P	8,500	11.0			
Q	10,000	25.0	6	2.0	Site to be located off of Hands Pike, between Tripoli Lane and Hideaway Drive, Covington, and to provide for active and passive recreational facilities for that area.
R	6,500	12.0			
S	7,500	19.0			
T	5,500	14.0			
U	4,000	10.0	7	3.9	Site to be located in the Hartland Subdivision. Site owned by the City of Independence.
V	3,000	8.0			
W	3,000	8.0			
X	3,000	8.0			
COMMUNITY PARKS MAP 6H					
AA	23,000	49.0			
BB	51,000	26.0			
CC	28,000	(3.0)			
DD	18,000	9.0			

(1) Parenthesis indicate amount of park land that is in excess of required standards.

SOURCE: Northern Kentucky Area Planning Commission analysis based on OKI traffic zone data.

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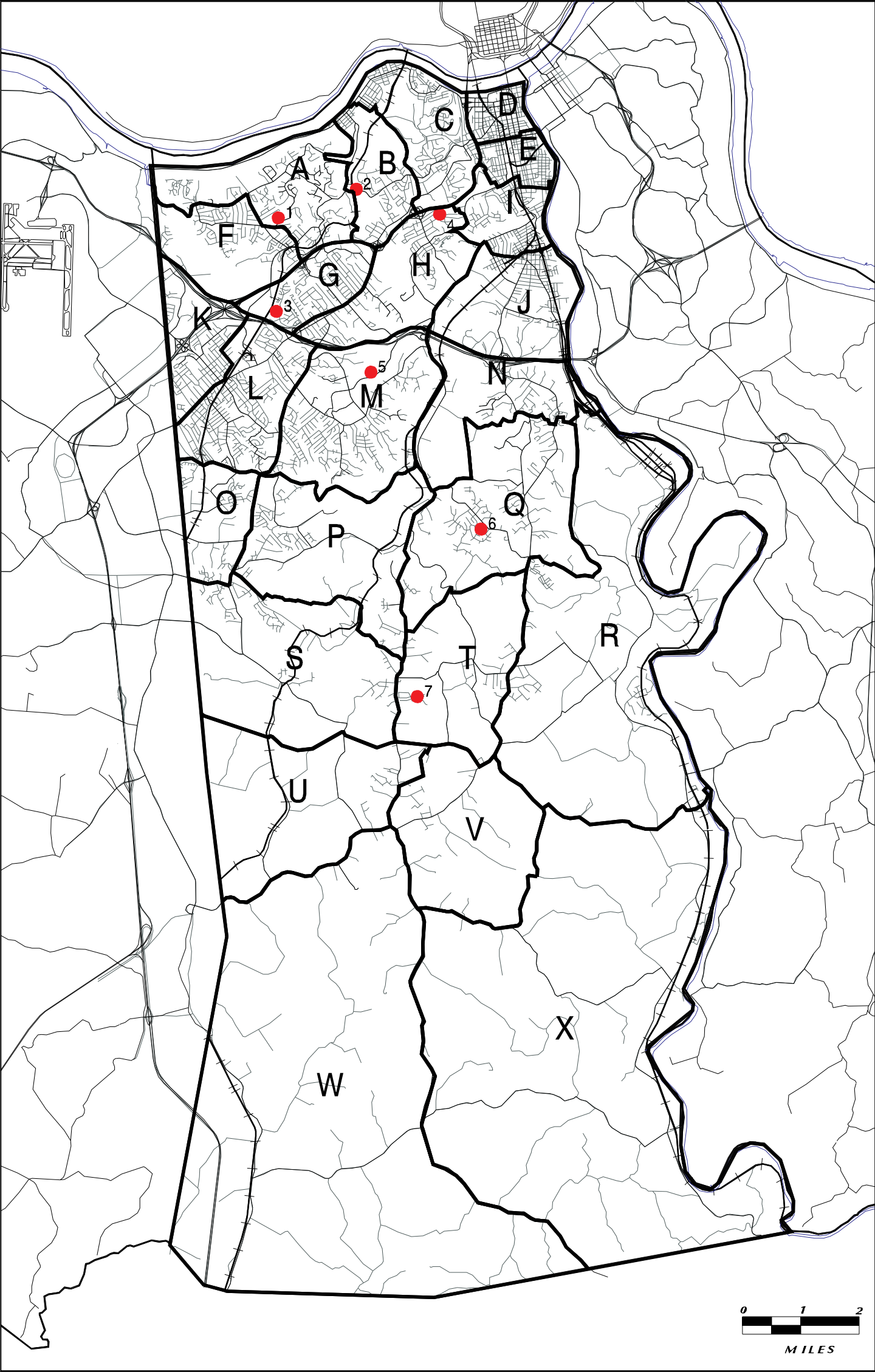
Table 6-9

GENERAL SERVICE AREA	POPULATION SERVED (2020)	ADDITIONAL ACRES NEEDED ⁽¹⁾	PROPOSED NEW PARKS		
			MAP ID	PROPOSED ACRES	COMMENTS
EE	26,000	43.0	8	26.6	Land donated by Deters Company for city park at Madison Pike and Shaw Road, Independence.
FF	7,000	(26.0)			
GG	9,000	23.0			
AREA-WIDE PARKS MAP 6H					
All Kenton County	162,000	2838	9	1,345.0	A new riverfront park link beginning from the Boone/Kenton County line and extending along the Ohio and Licking riverfronts and south along Banklick Creek.
			10	900.0	Site to be developed as a scenic view park link.
			11	250.0	This link is a part of the area-wide connecting park system, connecting with the Visalia Road park link at the Licking River; corridor to be retained in natural wooded area for scenic travel, etc.
			12	640.0	Area to include land within the Dry Creek Valley extending from Crescent Springs Road to the Ohio River valley; area to be preserved primarily in natural state and developed in part for hiking trails, bridle paths, picnicking, etc.
			13	100.0	This facility to be developed as an open parkway taking advantage of scenic features along Pleasant Run Creek.

(1) Parenthesis indicate amount of park land that is in excess of required standards.

SOURCE: Northern Kentucky Area Planning Commission analysis based on OKI traffic zone data.

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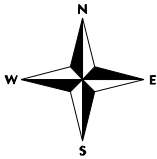


- MAP ID NO. PROPOSED NEIGHBORHOOD PARKS *
- 1 Crescent Springs, near the intersection of Collins Road and Buttermilk Pike.
 - 2 Crescent Springs, along Bromley-Crescent Springs Road
 - 3 Crestview Hills, within the Lookout Farm area.
 - 4 Fort Wright, at the end of Saint Anthony's Drive.
 - 5 Crestview Hills, on Horsebranch Road.
 - 6 Covington, off of Hands Pike, between Tripoli Lane and Hideaway Drive.
 - 7 Independence, in Hartland Subdivision.
- SEE TABLE 6-9 FOR MORE INFORMATION.

PROJECTED PARK NEEDS BY SERVICE AREA

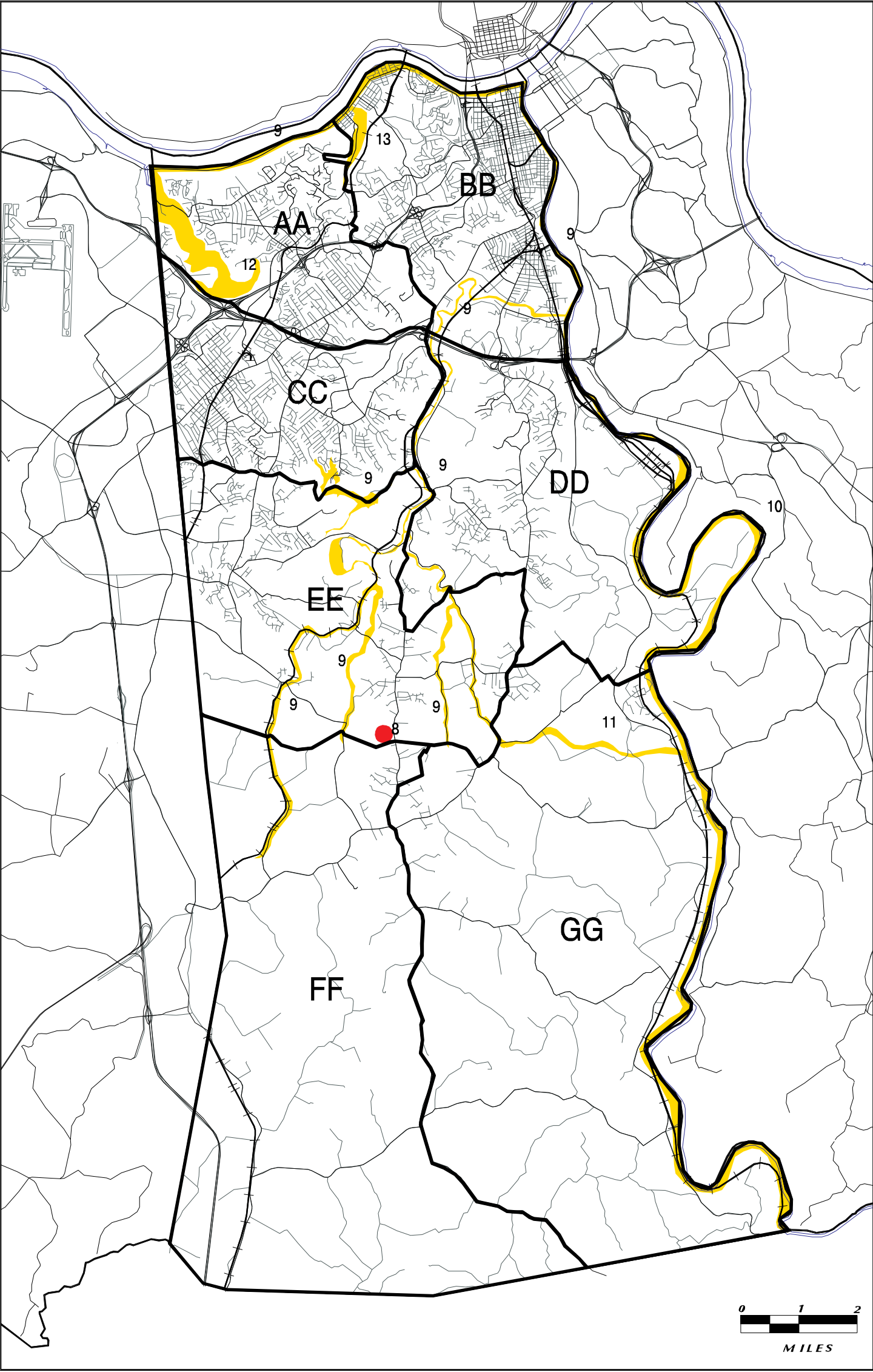
SERVICE AREA	ACRES NEEDED
A	14.0
B	9.0
C	8.5
D	11.5
E	18.0
F	13.5
G	7.0
H	19.5
I	16.0
J	17.0
K	15.0
L	16.5
M	0.0
N	9.0
O	10.0
P	11.0
Q	25.0
R	12.0
S	19.0
T	14.0
U	10.0
V	8.0
W	8.0
X	8.0

* NOTE:
These are general, not specific, proposed locations.
Service area boundaries were drawn based on population density projected to the year 2020 .



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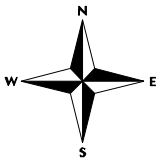
- MAP ID NO. PROPOSED COMMUNITY AND AREA WIDE PARKS
- 8 Madison Pike and Shaw Road, Independence
 - 9 Ohio and Licking Riverfronts and Tributaries
 - 10 Scenic View Park
 - 11 Visalia Road Scenic Corridor
 - 12 Dry Creek Valley
 - 13 Pleasant Run Creek Area

SEE TABLE 6-9 FOR MORE INFORMATION.

PROJECTED COMMUNITY PARK NEEDS BY SERVICE AREA

SERVICE AREA	ACRES
AA	49.0
BB	26.0
CC	0.0
DD	9.0
EE	43.0
FF	0.0
GG	23.0

* NOTE:
These are general, not specific, proposed locations.
Service area boundaries were drawn based on population density projected to the year 2020 .



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MAP 6H

1996 COMPREHENSIVE PLAN KENTON COUNTY, KENTUCKY

COMMUNITY AND AREA WIDE PARK PLAN

- Proposed Additions to the Area Wide Park System *
- Proposed Community Parks *
- Service Area Boundary
- Service Area

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Licking Rivers. Renewed interest in access to and development along the Ohio River will add to this system and increase support for its further development.

Map 6H identifies proposed areas for development of additional area-wide parks. Additional information can be found in Table 6-9. Based on the standards found in Table 6-7, adequate land area has been identified for area-wide park development. Table 6-8 indicates that, based on projected population, more acreage has been identified for area-wide park development than may be needed. The need, then, is to acquire and develop these areas for public use and/or access.

School-Parks - The School-Park concept has been an integral part of the Area-Wide Comprehensive Plan since 1972. As noted previously in this Chapter, this concept is based on schools sharing outdoor and indoor facilities with the community as a whole. This Plan Update continues to support this concept and further encourages this approach as a means to address some of the recreation and open space land area needs previously described.

Other Recommendations

As previously noted, provision of recreation and open space areas was a top priority identified at the outset of this Plan Update. Following are additional recommendations which support the needs previously described.

- County-wide, the ratio between "active" and "passive" recreation areas should be 20 percent active and 80 percent passive. This ratio is not necessarily to be maintained for each newly developed area, but maintained as a ratio within the entire county.
- A county-wide parks district and governing board should be organized. As previously mentioned, one difficulty of assessing needs for recreation acres is that service area boundaries would cross jurisdictional boundaries. Additionally, many of our communities do not have sufficient vacant land to provide areas within their jurisdiction for recreation needs. It is, therefore, necessary to accomplish the objective of increased recreation and open space areas on a broader county-wide basis.
- Increase preservation of natural areas such as hillsides and stream valleys, etc., for open space. Open space areas should be provided by both the public and private sectors to ensure that adequate acreage is available to maintain the existing character of our community.

FIRE SERVICE PLAN

EXISTING FIRE PROTECTION

Presently, there are 24 existing fire stations in Kenton County. The 24th fire station was completed in March 1991. Additionally, fire stations in Florence and Walton •

provide fire protection service to areas within Kenton County. Changes in the inventory of fire protection facilities that have occurred since the 1991 Plan Update are: the addition of 3 full-time salaried staff in Covington;

- the addition of 2 part-time salaried and 16 part-time volunteer staff in Park Hills;
- the addition of 1 full-time salaried staff and 11 part-time volunteer staff in Fort Wright;
- the addition of 10 part-time salaried staff and 9 part-time volunteer staff in Fort Mitchell;
- the addition of 3 part-time salaried and 5 part-time volunteer staff in Crescent Springs/Villa Hills;
- the addition of 1 full-time salaried, 10 part-time salaried and 40 volunteer staff in Erlanger;
- the addition of 2 full-time Firefighter/EMT, and 1 full-time EMS Captain in Taylor Mill; and
- the addition of 5 full time salaried staff in Independence.

Types of fire protection agencies within the county have remained unchanged since 1985. However, the creation of a number of fire protection districts has been implemented within a number of areas since 1981. Since the adoption of the 1972 Comprehensive Plan, establishment of fire protection districts has become a common means of financing fire protection services. Established pursuant to Chapter 75 of the Kentucky Revised Statutes, fire protection districts are authorized to levy a tax not exceeding ten cents per \$100 of assessed valuation.

In 1980, there was only one fire protection district in Kenton County. Between 1980 and 1985, seven additional fire protection districts were established, but since 1985, there have not been any new districts added. An inventory of existing fire protection departments and districts is shown in [Table 6-10](#).

The Kenton County Fiscal Court operates a central emergency communications center for fire and police services. Since the 1991 Plan Update, this communications system has been expanded to serve all areas within the county, except for the cities of Covington and Erlanger, each of which have separate systems for their respective communities.

RECOMMENDED FIRE PROTECTION STANDARDS

Recommended standards for distribution of fire companies are shown in [Table 6-11](#). These standards remain unchanged from the previous Plan Update and have been developed in accord with Fire Suppression Rating Schedule (FSRS) as adopted by the Insurance Services Office (ISO) of Kentucky in 1981.

The FSRS for public fire protection purposes are based on fire flows ranging from 500 to 2500 gallons per minute (gpm) and fire flow duration ranging from two to three hours, reduced from the previously required figure of a 10 hour fire flow duration. Recommended fire protection standards, relating to manning requirements, fire

TABLE 6 - 10
INVENTORY AND PLAN FOR FIRE PROTECTION FACILITIES AND PERSONNEL
1995

MAP ID	NAME AND LOCATION	APPROXIMATE SIZE OF SITE (acres)	SERVICE AREA	ISO * RATING	MANPOWER			EQUIPMENT	ADDITIONAL REQUIRED EQUIPMENT
					TYPE	FULL TIME	PART TIME		
1	Bromley 226 Boone Street	0.2	Bromley	9th	Volunteer	--	32	2 Pumpers 1 Truck 1 Utility Van 1 Portable Boat	--
2	Ludlow 234 Oak Street	0.3	Bromley, Ludlow and West Covington area	5th	Volunteer	--	23	3 Pumpers 1 Rescue Unit 2 Ambulances	1 Ladder
3	Covington Main Station Scott and Robins Streets	1.1	Covington basin area	3rd and 5th	Salaried	114	--	2 Pumpers 1 Ladder 1 Rescue Unit 2 Ambulances	--
4	Station #2 Parkway and Altamont Streets	0.1	Covington basin area					1 Pumper	--
5	Station #5 1255 Hands Pike	2.3	Oak Ridge/Latonia Lakes area, including the south portion of Taylor Mill					2 Pumpers 2 Ambulances	1 Ladder
6	Station #6 1504 Holman Avenue	0.1	Covington basin area					2 Pumpers	--
7	Station #8 Southern and Tibbatts Avenues	0.2	Latonia area, generally south of 20th Streets to Banklick Creek					1 Pumper 1 Quint 1 Ambulance	--

* ISO RATING: Insurance Services Office Fire Protection Classification.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission.

Table 6-10

MAP ID	NAME AND LOCATION	APPROXIMATE SIZE OF SITE (acres)	SERVICE AREA	ISO* RATING	MANPOWER			EQUIPMENT	ADDITIONAL REQUIRED EQUIPMENT
					TYPE	FULL TIME	PART TIME		
8	Park Hills 1106 Amsterdam Road	0.6	Park Hills	5th	Salaried Volunteer	-- --	4 31	2 Pumpers 1 Rescue Unit 1 Ambulance	--
9	Fort Wright 409 Kyles Lane	5.1	Park Hills/Fort Wright area; eastern portion of Fort Mitchell	4th	Salaried Volunteer	2 --	-- 50	2 Pumpers 1 HazMat Unit 1 Ambulance	--
10	Southern Hills 381 Dudley Road	1.1	Edgewood area and part of Crestview Hills	3rd	Salaried Volunteer	3 --	-- 65	3 Pumpers 1 Quint 1 Rescue Unit 1 Ambulance	--
11	Fort Mitchell Dixie Highway and Highland Avenue	1.0 (police, fire, city)	Fort Mitchell/Lakeside Park/Crestview Hills area	3rd	Salaried Volunteer	2 --	10 55	2 Pumpers 1 Quint 1 Rescue Unit 2 Ambulances	--
12	Crescent Springs-Villa Hills 777 Overlook Drive	3.4	Crescent Springs/Villa Hills/Crescent Park area	5th	Salaried Volunteer	-- --	5 55	3 Pumpers 1 Rescue Unit 2 Ambulances	--
13	Erlanger Main Station Graves and Barker Street	1.1	Erlanger area from north on Donaldson Rd. south to Stephenson Rd., and the Dixie Highway area from the Boone/Kenton County line east to Edgewood Rd.	4th	Salaried	4	10	2 Pumpers 1 Ladder 1 Ambulance	--

* ISO RATING: Insurance Services Office Fire Protection Classification.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission.

Table 6-10

MAP ID	NAME AND LOCATION	APPROXIMATE SIZE OF SITE (acres)	SERVICE AREA	ISO* RATING	MANPOWER			EQUIPMENT	ADDITIONAL REQUIRED EQUIPMENT
					TYPE	FULL TIME	PART TIME		
14	Station #2 Alice Street	0.1	Southern areas of Elsmere and Erlanger, including Edgewood, the vicinity of Dudley and Turkeyfoot Roads		Volunteer	--	20	1 Rescue Unit 1 Pumper	--
15	Station #3 Narrows Road	11.6			Volunteer	--	20	1 Pumper 1 Reserve Pumper	--
16	Elsmere 401 Garvey Avenue	0.1	City of Elsmere	5th	Salaried Volunteer	4 --	-- 50	2 Pumpers 1 Rescue Unit 1 Ambulance	--
17	Taylor Mill Main Station 5231 Taylor Mill Road	2.6	Northern Portion of Taylor Mill from St. Mathews Circle and Taylor Mill Rd. to the south, to the interchange of I-75 and Taylor Mill Rd. to the north	4th	Volunteer	3	51	2 Pumpers 1 Rescue Unit 2 Ambulance 2 Fire Cruisers	--
18	Station #2 4800 Winston Avenue	0.4	To the north of I-275 up to Covington city limits					1 Pumper	--
19	Independence Main Station 5278 Madison Pike	2.2	Central portion of Independence in the vicinity of Madison Pk.	4th and 9th	Salaried Volunteer	11 --	-- 40	3 Pumpers 1 Utility Truck 1 Ambulance	1 Ladder

* ISO RATING: Insurance Services Office Fire Protection Classification.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission.

Table 6-10

MAP ID	NAME AND LOCATION	APPROXIMATE SIZE OF SITE (acres)	SERVICE AREA	ISO* RATING	MANPOWER			EQUIPMENT	ADDITIONAL REQUIRED EQUIPMENT
					TYPE	FULL TIME	PART TIME		
20	Station #2 740 Cox Road	1.1	Independence area					1 Pumper 1 Ambulance	--
21	Station #3 4052 Richardson Road	1.4	Area of Ridgeview Heights and northern part of Independence					1 Pumper	--
22	Ryland Heights Route 5, Decoursey Pike	1.3	Eastern portions of the county, extending along the Licking River	9th	Volunteer	--	48	5 Pumpers 1 Utility Truck 1 Ambulance	--
23	Piner - Fiskburg KY 14, near KY 17	1.6	Southern portion of the county west of Madison Pike	9th	Volunteer	--	32	3 Pumpers 1 Water Truck 1 Rescue Unit 1 Ambulance	--
24	Kenton and Community 177 Decoursey Pike	0.2	Southern portion of the county east of Madison Pike	9th	Volunteer	--	22	3 Pumpers 1 Water Truck 1 Rescue Unit 1 Ambulance	--
25	Lakeview (proposed)	--	Vicinity of Madison Pike, from Kyles Lane south to Hands Pike	--	--	--	--	--	1 engine
26	Mt. Zion Road area (proposed)	--	Banklick Creek, Bristow Road, Richwood area	--	--	--	--	--	1 engine
27	Walton U.S 25	--	Walton and western portion of South Kenton County	5th	Salaried Volunteer	15	14	1 Ladder, 4 Pumpers 1 Tanker, 1 Heavy Rescue, 2 Ambulance	--

* ISO RATING: Insurance Services Office Fire Protection Classification.

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.

PREPARED BY: Northern Kentucky Area Planning Commission.

TABLE 6 - 11
RECOMMENDED STANDARDS FOR DISTRIBUTION OF FIRE COMPANIES⁽¹⁾

BASIC FIRE FLOW	NUMBER OF COMPANIES REQUIRED	FIRE FLOW DURATION ⁽³⁾
500 - 1,000 GPM ⁽²⁾ Ladder Companies	1 engine company within 2 - 1/2 miles 1 company within 2 - 1/2 miles	2 hours
1,250 - 2,500 GPM Ladder Companies	2 engine companies within 1 - 1/2 miles 1 company within 2 - 1/2 miles	2 hours
3,000 - 3,500 GPM Ladder Companies	3 engine companies within 1 - 1/2 miles 1 company within 2 - 1/2 miles	3 hours

(1) Total number of companies required in an area the size of Northern Kentucky would be based on the distribution standards as contained herein.

(2) Gallons Per Minute.

(3) A water system capable of delivering at least 250 gpm for a period of two hours, plus consumption at the maximum daily rate.

SOURCE: Fire Suppression Rating Schedule of ISO Commercial Risk Services, Inc.,
as coordinated with the Insurance Services Office, 1980.

PREPARED BY: Northern Kentucky Area Planning Commission.

protection equipment, and locational factors affecting specific sites, remain unchanged from standards included in the 1986 Plan. These standards, within the Urban Service Area, include the following:

- Maximum 1-1/2 mile service area for engine companies;
- Maximum 2-1/2 mile service area for ladder companies;
- Recommended number of engine and ladder companies based on recommended standards for fire protection.

RECOMMENDED FIRE PROTECTION PLAN

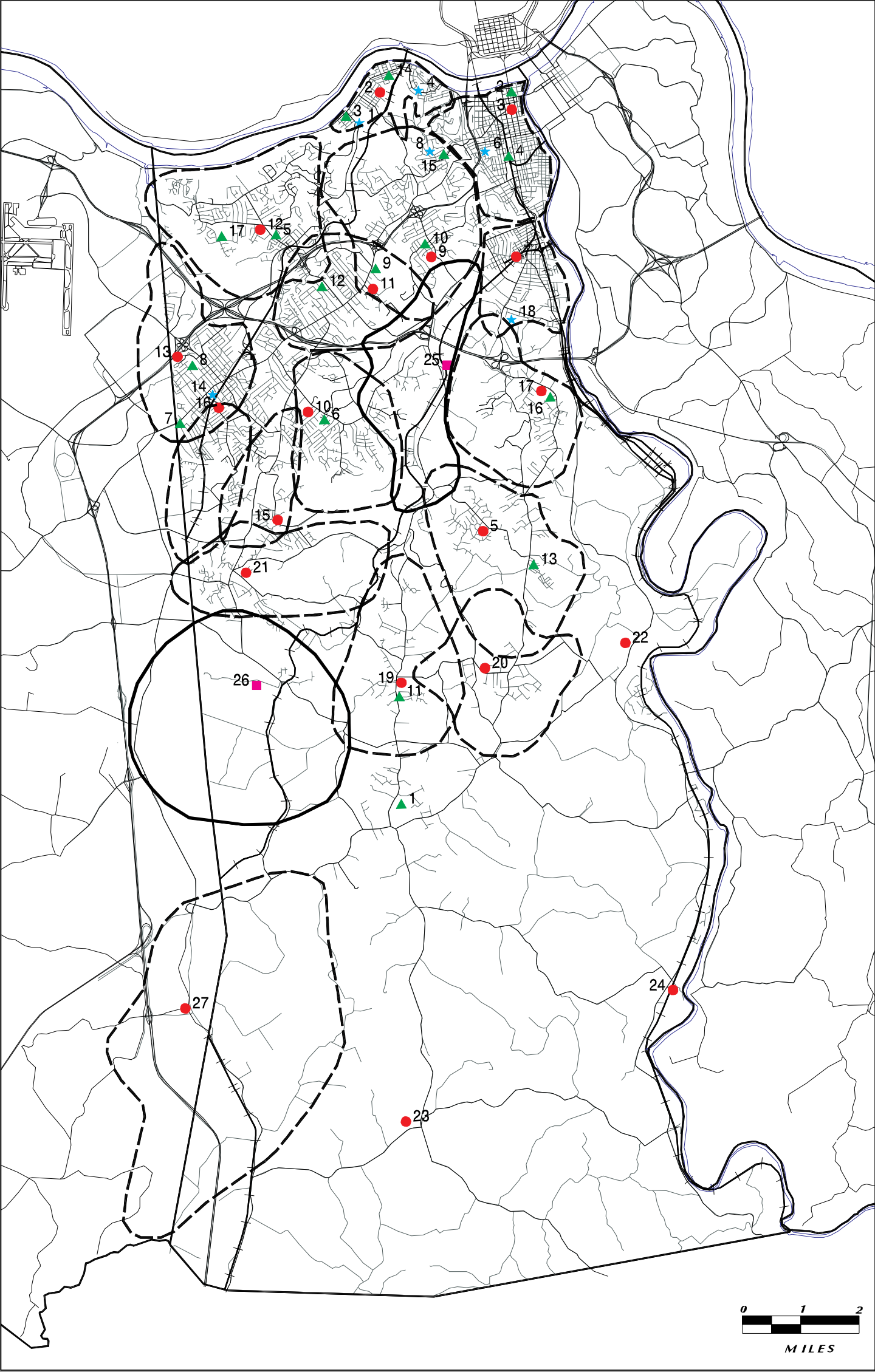
"To provide an effective program of public safety to prevent, where possible, and minimize, when necessary, injury or damage to person or property." --"Effort should be made to provide appropriate levels of public safety services to the entire area. This is meant to be inclusive of, and primarily aimed at, the prevention aspects of public safety. Specific areas of concern, in this regard, are programs for fire and police protection, ...This will require provision of adequate facilities, equipment, and personnel located on the basis of need, and not constricted by arbitrary jurisdictional boundaries or special interest considerations."

The Fire Protection Plan for the 1996 Plan Update is similar to the plan recommended in 1991 with changes made to reflect the need to protect areas of new development. [Map 6I](#) and [Table 6-10](#) illustrate and provide information on the Fire Protection Plan.

The Recommended Fire Protection Plan is not intended to preclude construction of new facilities in service areas where existing stations are recommended to be retained. If a new site is proposed to serve the intended service area (e.g., replace a station recommended to be retained herein), and meets the recommended standard as contained herein, such facility would be consistent with this plan.

In summary, the Fire Protection Plan recommends the following:

- Retention of 18 existing stations.
- The 1991 Plan Update called for the Elsmere station to be phased out. This Plan update retains the Elsmere station to serve the Dixie Highway and Garvey Avenue areas. In the event cooperative agreements are made to have a larger area served by a station located in Boone County, this station could be phased out. Additional residential development and new areas identified for industrial land use within the Plan Update make this station the most viable alternative for fire protection of the area during the planning period.
- Closing of six (6) existing stations as new stations are constructed or when existing stations are properly equipped and manned to serve the areas currently served by stations recommended to be closed.



MAP
ID FIRE STATIONS
NO.

- 1 Bromley
- 2 Ludlow
- 3 Covington - Main Station
- 4 Station #2
- 5 Station #5
- 6 Station #6
- 7 Station #8
- 8 Park Hills
- 9 Fort Wright
- 10 Southern Hills
- 11 Fort Mitchell
- 12 Crescent Springs - Villa Hills
- 13 Erlanger - Main Station
- 14 Station #2
- 15 Station #3
- 16 Elsmere
- 17 Taylor Mill - Main Station
- 18 Station #2
- 19 Independence - Main Station
- 20 Station #2
- 21 Station #3
- 22 Ryland Heights
- 23 Piner - Fiskburg
- 24 Kenton and Community
- 25 Lakeview (Proposed)*
- 26 Mt. Zion Road (Proposed)*
- 27 Walton (Boone County)

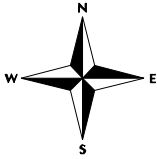
SEE TABLE 6-10 FOR MORE INFORMATION.

MAP
ID POLICE STATIONS
NO.

- 1 Kenton County Police
- 2 Kenton County Sheriff
- 3 Bromley
- 4 Covington
- 5 Dixie Police Authority
- 6 Edgewood
- 7 Elsmere
- 8 Erlanger
- 9 Fort Mitchell
- 10 Fort Wright
- 11 Independence
- 12 Lakeside Park and Crestview Hills Authority
- 13 Latonia Lakes
- 14 Ludlow
- 15 Park Hills
- 16 Taylor Mill
- 17 Villa Hills

SEE TABLE 6-12 FOR MORE INFORMATION.

* NOTE:
These are general, not specific, proposed locations.



NORTHERN KENTUCKY AREA PLANNING COMMISSION
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The information presented in this product is accurate for planning purposes only

1996 COMPREHENSIVE PLAN KENTON COUNTY, KENTUCKY

FIRE AND POLICE PROTECTION PLAN

- Existing Fire Stations
- Proposed Fire Stations
- Fire Stations to be Deleted
- Existing Police Station
- Existing Fire Service Area
- Proposed Fire Service Area

- Construction of two (2) new stations. One to be located in the vicinity of the Kentucky Route 17 corridor near I-275 to serve the area generally from Kyles Lane south to Hands Pike. The second will be located in the vicinity of Mt. Zion and Bristow Roads to serve new residential and industrial development in that area. Also, the Independence Fire District has secured land near Shaw Road, south of the current Main Station location to construct a new station and to relocate the Main Station to this site. When the Main Station is relocated to this site, there may be the need for an additional station to the north to serve the Pelly Road area, which includes new residential development and two (2) new public schools.
- Coordinated fire protection between Kenton County and the city of Walton to serve the southern Kenton County area along U.S. 25.
- Areas in the southern portion of the county are recommended to be provided service by the existing Piner - Fiskburg, Ryland Heights, and Kenton Stations, with supplemental service from the urbanized area stations. Within the southern portion, where residential growth is occurring in the Nicholson area, Visalia-Staffordsburg Road area, and east of Nicholson along Kentucky Route 16, there may be need for an additional station. This area should be monitored during this planning period.
- Continued reliance on a combination of full-time/volunteer personnel (i.e., full-time fire fighters in the northern, high density, sector of the county, a mixture of full-time and volunteer personnel in the suburban less dense area, and all volunteers in the rural area).

OTHER RECOMMENDATIONS

- A computer-aided dispatch system for use on a county-wide basis is needed to better coordinate services and eliminate the problem of fragmented frequencies during times of disaster and emergencies. The potential to combine dispatching systems for fire departments and police departments should be investigated to increase efficiency and to aid in emergency operations.
- Each fire station should house ambulance/emergency response units.
- Continued development of the existing multi-purpose fire service training ground should be continued for use by all fire departments within Kenton County.
- New sites for fire protection and other emergency services should be located to avoid or minimize disruptions to service by rail, highway traffic, and other potential obstacles that lengthen response time.

POLICE PROTECTION PLAN

POLICE SERVICES

An inventory of existing police facilities is shown in [Table 6-12](#). The location of existing police stations is shown on Map 6I. Since the last Plan Update, there has been an increase of about 50 full-time officers serving the Kenton County area, a decrease of about 10 part-time officers, and the addition of 61 cruisers. Below is a summary of the major changes.

Increase in the number of full-time police officers:

- Kenton County Police - 6 regular and 6 civilian officers
- Kenton County Sheriff - 2 regular officers
- Covington - 18 regular officers
- Dixie Police Authority - 2 regular officers
- Edgewood - 1 regular officer
- Erlanger - 6 regular officers
- Fort Wright - 2 regular officers
- Independence - 3 regular officers
- Ludlow - 3 regular officers
- Taylor Mill - 1 regular officer
- Villa Hills - 2 regular officers

Increase in the number of cruisers:

- Kenton Police Agency - 2 cruisers
- Kenton County Police - 5 cruisers
- Kenton County Sheriff - 5 cruisers
- Covington - 24 cruisers
- Dixie Police Authority - 3 cruisers
- Edgewood - 1 cruiser
- Erlanger - 7 cruisers
- Fort Mitchell - 2 cruisers
- Fort Wright - 3 cruisers
- Independence - 4 cruisers
- Ludlow - 6 cruisers
- Park Hills - 1 cruiser
- Taylor Mill - 3 cruisers, and 1 4X4 Blazer
- Villa Hills - 2 cruisers

Decrease in the number of part-time officers:

- Kenton County Sheriff - 2 part-time officers
- Dixie Police Authority - 1 part-time officer
- Fort Mitchell - 5 part-time officers
- Fort Wright - 1 part-time officer
- Ludlow - 1 part-time officer
- Part Hills - 1 part-time officer
- Taylor Mill - 3 part-time officers

TABLE 6-12
INVENTORY OF EXISTING POLICE FACILITIES
1995

MAP ID	NAME OF AGENCY	ADDRESS	DATE BUILT	INCARCERATION FACILITIES OR AGREEMENTS	MANPOWER ⁽¹⁾			EQUIPMENT	TRAINING PROGRAM		CRIME PREVENTION PROGRAM
					TYPE	FULL TIME	PART TIME		PROFESS. ⁽²⁾	DEPART. ⁽³⁾	
	Kentucky State Police	Post #6, Dry Ridge, Grant County	1983	Use county facility having jurisdiction where incident occurred	Regular Civilian	49 12	0 0	53 cruisers	Yes	Yes	Home Check Operation I.D.
1	Kenton County Police	11777 Madison Pike, Independence	1975	Kenton County Jail	Regular Civilian	33 15	0 0	37 cruisers	Yes	Yes	DARE, Business & Vacation Home Checks, Community Presentations
2	Kenton County Sheriff	3rd and Court Streets, Covington	1970	Kenton County Jail	Regular	28	1	17 cruisers	Yes	Yes	None
3	Bromley	116 Pike Street	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	Covington	1929 Madison Pike	1980	Kenton County Jail	Regular	107	0	113 cruisers	Yes	Yes	C.O.P., Vacation Alarm/Home Check, Crime Prevention Unit, Neighborhood Watch
5	Dixie Police Authority	2530 Hazelwood Drive, Crescent Springs	1980	Kenton County Jail	Regular	9	0	10 cruisers	Yes	Yes	Operation I.D., Vacation Alarm/Home Check
6	Edgewood	385 Dudley Pike	N/A	Kenton County Jail	Regular	10	0	10 cruisers	No	Yes	Operation I.D., State Crime Prevention

(1) Type of manpower is further described as: Regular = paid police officers; Auxiliary; Volunteer; and Unpaid = nonpaid assistants to police force.

(2) Firing range, first aid courses, etc.

(3) Conferences, seminars, etc.

(4) These cities are served by the Kenton County Police Department.

SOURCE: Northern Kentucky Area Planning Commission survey, 1995.

PREPARED BY: Northern Kentucky Area Planning Commission.

Table 6 - 12

MAP ID	NAME OF AGENCY	ADDRESS	DATE BUILT	INCARCERATION FACILITIES OR AGREEMENTS	MANPOWER ⁽¹⁾			EQUIPMENT	TRAINING PROGRAM		CRIME PREVENTION PROGRAM
					TYPE	FULL TIME	PART TIME		PROFESS. ⁽²⁾	DEPART. ⁽³⁾	
7	Elsmere	318 Garvey Avenue	1978	Kenton County Jail	Regular	8	0	9 cruisers	Yes	Yes	Operation I.D., State Crime Prevention
8	Erlanger	505 Commonwealth Avenue	1973	Kenton County Jail	Regular	28	0	28 cruisers	Yes	Yes	Operation I.D., Neighborhood Watch, DARE, N. Ky. Public Information
	Fairview ⁽⁴⁾	Box 215, City Building	N/A	Kenton County Jail	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	Fort Mitchell	Dixie Highway and Highland Avenue	1928	Kenton County Jail	Regular Reserve	12 0	0 0	8 cruisers	Yes	Yes	Operation I.D., Vacation Burglar Alarm/Home Check, DARE
10	Fort Wright	409 Highland Pike	1990	Kenton County Jail	Regular	9	0	8 cruisers	Yes	Yes	Operation I.D., Bicycle Patrol, Public Appearances, I-25 Enforcement Program
11	Independence	5290 Madison Pike	1979	Kenton County Jail	Regular	13	3	14 cruisers	No	Yes	Operation I.D. Home Check
	Kenton Vale ⁽⁴⁾	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A Crime Prevention
12	Lakeside Park and Crestview Hills Authority	9 Buttermilk Pike, Lakeside Park	1955	Kenton County Jail	Regular	7	0	7 cruisers	Yes	Yes	Operation I.D., Neighborhood Watch, Home Check

(1) Type of manpower is further described as: Regular-paid police officers; Auxiliary; Volunteer; and Unpaid - nonpaid assistants to police force.

(2) Firing range, first aid courses, etc.

(3) Conferences, seminars, etc.

(4) These cities are served by the Kenton County Police Department.

SOURCE: Northern Kentucky Area Planning Commission survey, 1995.

PREPARED BY: Northern Kentucky Area Planning Commission.

Table 6 - 12

MAP ID	NAME OF AGENCY	ADDRESS	DATE BUILT	INCARCERATION FACILITIES OR AGREEMENTS	MANPOWER ⁽¹⁾			EQUIPMENT	TRAINING PROGRAM		CRIME PREVENTION PROGRAM
					TYPE	FULL TIME	PART TIME		PROFESS. ⁽²⁾	DEPART. ⁽³⁾	
13	Latonia Lakes	6112 Clubhouse	N/A	Kenton County Jail	N/A	N/A	N/A	N/A	No	Yes	None
14	Ludlow	231 Elm Street	1922	Kenton County Jail	Regular Dispatcher	8 1	0	9 cruisers	No	Yes	Operation I.D., DARE
15	Park Hills	1106 Amsterdam	1943	Kenton County Jail	Regular	5	0	4 cruisers	Yes	Yes	Operation I.D.
	Ryland Heights ⁽⁴⁾	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	Taylor Mill	5225 Taylor Mill Road	1960	Kenton County Jail	Regular	7	1	6 cruisers & 1 Blazer(4x4)	No	Yes	Operation I.D., Neighborhood Watch, Because We Care
17	Villa Hills	City Building, Rogers Road	N/A	Kenton County Jail	Regular	8	0	8 cruisers	Yes	Yes	Operation I.D., Neighborhood Watch, Explorers Group

(1) Type of manpower is further described as: Regular-paid police officers; Auxiliary; Volunteer; and Unpaid - nonpaid assistants to police force.

(2) Firing range, first aid courses, etc.

(3) Conferences, seminars, etc.

(4) These cities are served by the Kenton County Police Department.

SOURCE: Northern Kentucky Area Planning Commission survey, 1995.

PREPARED BY: Northern Kentucky Area Planning Commission.

In addition, none of the police departments decreased the number of full-time officers or increased the number of part-time officers. The Ludlow Police Department decreased the number of dispatchers from four (4) to one (1) following consolidation of this service with the Kenton County Fiscal Court. All departments except the City of Elsmere and the Lakeside Park/Crestview Hills Authority increased the number of cruisers available for service.

RECOMMENDED POLICE PROTECTION PLAN

The recommendations made in the 1991 Plan Update are similar to those listed here, with some additional recommendations coming from input from the Community Facilities Focus Group. The recommendations are as follows:

- Improvement of communication and dispatch systems to provide more efficient police services.

The 1972 Plan recommended that a single police "center" be established where information could be centrally housed, and central dispatching, communications and other complex police functions, including a records management system, could be maintained. This plan update continues to support the 1972 plan recommendation and further identifies the need for computer aided dispatching and microwave linked communication on a county-wide basis. A tremendous effort has been made to provide improved dispatching via the Kenton County Police Department. However, this system does not include the cities of Covington and Erlanger.

The potential to combine dispatching systems for police departments and fire departments should be investigated to increase efficiency and to aid in emergency operations.

- Evaluation of existing mutual protection agreements between police agencies to achieve maximum police protection at minimum cost. Included within this recommendation is the sharing of certain specialized services such as: canine, advanced accident investigation, investigation of serious crimes, crime scene investigation and evidence collection, a joint special response unit, and narcotics investigations. Sharing of these activities and functions will avoid duplicative expenditures of funds.
- Police technology within Kenton County should be upgraded to include mobile data terminals and portable reporting in conjunction with the previously mentioned communications and mutual aid improvements.
- Evaluation of how to provide and maintain adequate jail facilities. Kenton County Fiscal Court is currently in the process of evaluating alternatives regarding a new jail facility.

LIBRARY FACILITIES

EXISTING LIBRARY FACILITIES

As a result of devoted efforts by many interested citizens in the summer of 1967, a county-wide library district was established, and today, the Kenton County Public Library (KCPL) is the principal public library resource in Northern Kentucky. Prior to 1967, library services in Kenton County were provided by three (3) organizations: a main library located in Covington, established in 1898, which was owned and operated solely by the city of Covington Board of Commissioners; the Erlanger Women's Club, which operated a library in Erlanger from 1914 until 1967; and the Bookmobile Board, which operated the bookmobile service in rural Kenton County.

The KCPL is the leading net lending public library in Kentucky. The KCPL continues as a member of the Greater Cincinnati Library Consortium (GCLC), which consists of 43 other area libraries, including the Boone and Campbell County Public Libraries, the Northern Kentucky University Library, the Public Library of Cincinnati and Hamilton County, the University of Cincinnati Library, and Xavier University Library. Membership in this consortium provides Kenton County's citizens access to over 10.3 million books and 51,000 periodicals, an increase of 2.3 million books and 1,000 periodicals since 1990. The GCLC system allows for both direct lending and interlibrary loans. Furthermore, the KCPL has a reciprocal borrowing agreement with the eight northern Kentucky counties, which includes Kenton, Boone, Campbell, Carroll, Grant, Gallatin, Owen and Pendleton Counties. This agreement provides for direct lending to residents of these counties. Under this arrangement, patrons from any of these counties can borrow directly from the library system in the other counties.

Changes that have occurred in the provision of public library services in Kenton County between 1990 and 1995, are as follows (see Tables [6-13](#) and [6-14](#), and [Map 6J](#)):

- In 1995, the library staff obtained access to the Internet, which provides selected databases for the public. By 1997, full access to the World Wide Web is expected to be available for the public via in-house terminals and/or modems.
- In the spring of 1995, the new 7,000 square foot Independence Branch Library opened, with 32,000 volumes, serving an average of 8,500 citizens each month. The bookmobile was returned to the Kentucky Department for Libraries and Archives as it had primarily served as a traveling branch at the adjacent Cherokee Shopping Center.
- The total book collection has increased from approximately 239,277 in 1990 to 363,111 in 1995. Annual circulation has increased from 794,573 in 1990 to 971,127 in 1995, and per capita circulation from 5.8 in 1990 to 6.8 in 1995.
- The Northern Kentucky Talking Book Library for the Blind and Physically Handicapped is housed in the Kenton County Public Library in Covington.

TABLE 6-13
PUBLIC LIBRARY SERVICE IN KENTON COUNTY
FISCAL YEAR 1994 - 1995

CHARACTERISTICS

Total Population (1994 Estimate)	144,848
Tax Rate (per \$100 assessed valuation)	
Real Estate	\$0.0600
Personal Property	\$0.0787
Motor Vehicles	\$0.0578
Total Direct Kentucky Dept. for Libraries & Archives Grants	\$150,874.46
Total Direct State Aid	\$82,211.00
Total Expenditures	\$3,749,312.00
Expenditures Per Capita	\$26.40
Total Number Of Employees	56
Total Book Collection	301,257
Total Audiovisual Collection	62,458
Total Serial Subscriptions	626
Total Circulation	1,095,643
Percent Library	97%
Percent Bookmobile	3%
Circulation Per Capita	6.8
Inter library Loans	
Loaned	4,295
Borrowed	2,264

SOURCE: Kenton County Library District, FY 1995 Annual Report.
PREPARED BY: Northern Kentucky Area Planning Commission.

TABLE 6 - 14
INVENTORY AND PLAN FOR LIBRARY FACILITIES
1995

MAP ID	NAME AND GENERAL LOCATION OF LIBRARY	SERVICE AREA	SITE SIZE (acres)	FLOOR AREA (sq. ft.)	SUGGESTED FLOOR SPACE (sq. ft.)	NUMBER OF BOOKS/ANNUAL CIRCULATION ⁽¹⁾	STAFF ⁽³⁾	PROJECTED POPULATION SERVED - 2020
1	Kenton County Main Library, 502 Scott St., Covington. 1974*	Total county; branch service to Covington Basin Area	1.5	55,000	55,000	240,052/ 490,625	54	162,000 (main) 32,400 (branch)
2	Proposed	Park Hills, Bromley, Fort Mitchell, Fort Wright, Ludlow, Villa Hills	--	--	20,000	--	--	30,800
3	Erlanger Community Branch Library, Dixie Hwy. and Montgomery Rd., Erlanger. 1978*	Erlanger, Elsmere, Edgewood, Crescent Springs, Crestview Hills, Lakeside Park	1.2	13,000	22,600	87,292/ 430,018	17	35,400
4	Proposed	Latonia area of Covington, Taylor Mill, Latonia Lakes, Oak Ridge area	--	--	13,000	--	--	22,600
5	Independence Branch Library, Taylor Mill Road, Independence. 1995*	Independence, Southern Kenton County	5.2	7,000	18,400	36,371/ 175,000 ⁽²⁾	8	20,800
6	Proposed Turkeyfoot Road / Richardson Road	Erlanger, Independence, and western Kenton County	--	--	15,000	--	--	20,000

(1) Annual circulation figures are for the year 1990.

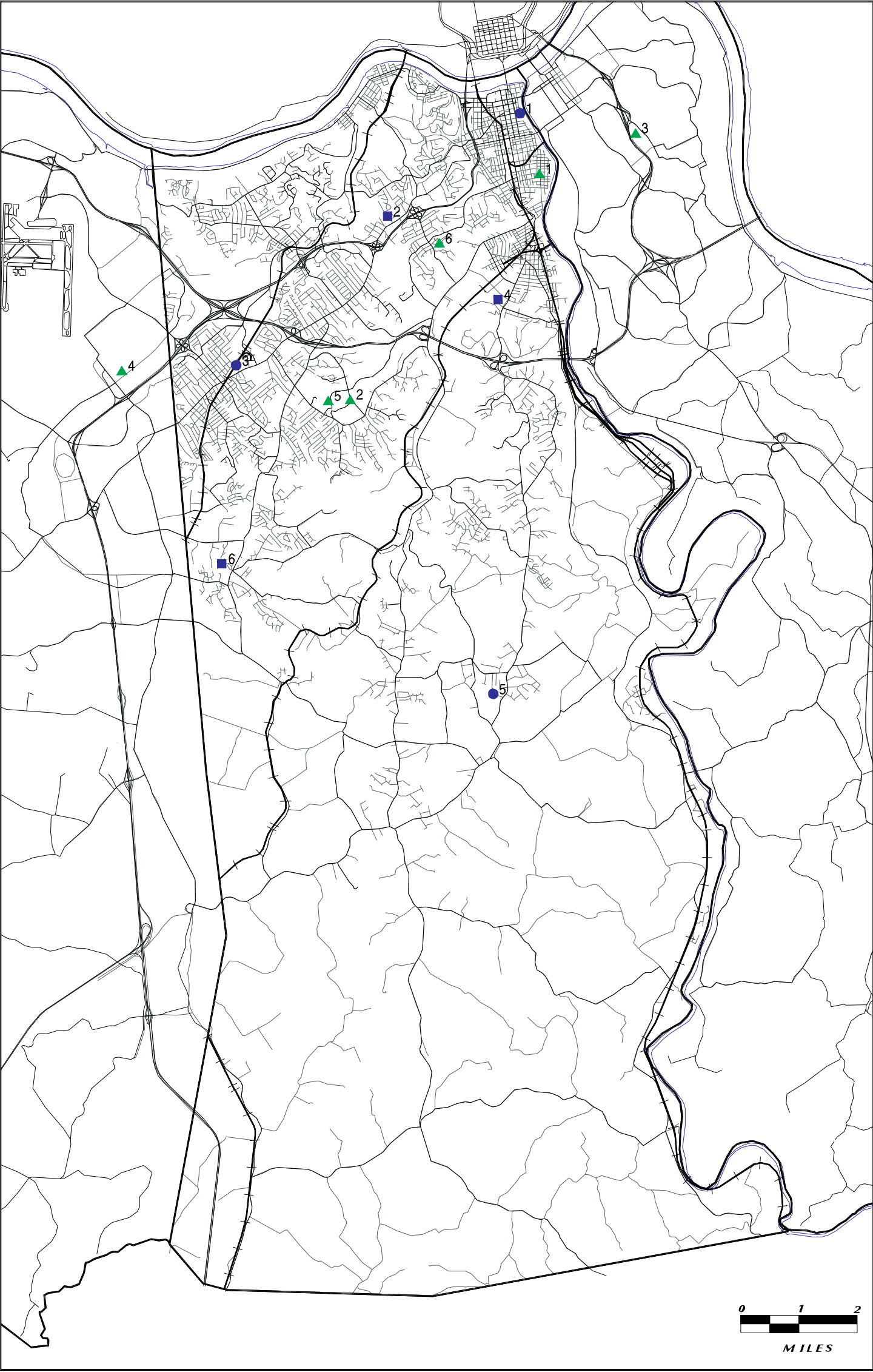
(2) Independence circulation based on a 12 month projection. Facility open 6 weeks of FY 1995 and circulated 24,566 items.

(3) Includes both full time and part time staff.

* Date of construction.

SOURCE: Kenton County Library District.

PREPARED BY: Northern Kentucky Area Planning Commission.



MAP
ID LIBRARY FACILITIES
NO.

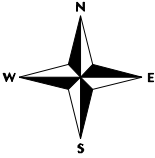
- 1 Kenton County Main Library
- 2 Proposed Community Branch *
- 3 Erlanger Community Branch
- 4 Proposed Community Branch *
- 5 Independence Branch Library
- 6 Proposed Community Branch *

SEE TABLE 6-14 FOR MORE INFORMATION.

MAP
ID HEALTH CARE FACILITIES
NO.

- 1 Saint Elizabeth Medical Center North
- 2 Saint Elizabeth Medical Center South
- 3 Saint Luke Hospital East
- 4 Saint Luke Hospital West
- 5 HEALTHSOUTH Northern Kentucky Rehab Hospital
- 6 Children's Psychiatric Hospital of Northern Kentucky

* NOTE:
These are general, not specific, proposed locations.



NORTHERN KENTUCKY AREA PLANNING COMMISSION

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The information presented in this product is accurate for planning purposes only

MAP 6J

1996 COMPREHENSIVE PLAN KENTON COUNTY, KENTUCKY

HEALTH CARE AND LIBRARY FACILITIES

- Existing Libraries
- Proposed Libraries
- Health Facility

OTHER EXISTING LIBRARY FACILITIES

Public Library of Cincinnati and Hamilton County The Public Library of Cincinnati and Hamilton County, to which the Kenton County Public Library has access through the GCLC, is recognized as one of the finest in the country. It includes the main library, located in downtown Cincinnati, which has approximately 360,000 square feet of floor area housed within a seven level structure, and 41 branches. In 1995, the Public Library System of Cincinnati and Hamilton County provided a book collection of approximately 4.6 million volumes, 2.6 million microfiche, 200,000 bound magazines, 65,000 audio cassettes, and 350,000 materials owned by the Library for the Blind.

Boone County Public Library A public library district was established in Boone County in 1974. In 1976, a main library facility was constructed in Florence, and in 1988, the Lents Library, a branch of the Boone County system, was constructed in Hebron. In 1994, a branch library was constructed in Walton.

Due to the close proximity of this library to Kenton County, and the establishment of the GCLC, the Boone County library plays a significant role in serving Kenton County residents as a branch facility. Usable floor space at the main facility is approximately 12,000 square feet. The Hebron branch location contains approximately 6,200 square feet. The Walton branch also contains approximately 6,200 square feet. To date, the book collection includes approximately 148,000 volumes, approximately 19,000 audio visual programs, and 310 periodical subscriptions.

Northern Kentucky University Library NKU permits use of its library facilities by the general public. Usable floor space of the library is approximately 60,000 square feet. Current staff for the facility includes 16 faculty, 19 staff and 55 student employees. To date, the book collection includes approximately 286,000 volumes, 1500 periodical subscriptions, and 7.5 million microfiche. This library is a government depository and receives selected government publications. To date, the library contains approximately 580,000 federal government and 19,000 state government documents. Databases are automated, which enables cataloging and searching for data by computer.

Thomas More College Library Thomas More College Library, a private facility, is located in Crestview Hills. This library contains approximately 68,000 square feet. In 1995, the library had approximately 130,000 volumes and 630 periodical subscriptions.

RECOMMENDED LIBRARY PLAN

Basic Goals and Objectives, stated previously in Chapter II, are restated:

"To provide for an adequate amount of well located cultural facilities to serve the basic needs of the population." -- "Effort should be made to provide for the establishment of programs and institutions which promote the cultural pursuits of all segments of society. In this connection, it

would be necessary to provide for adequate, well located, cultural facilities oriented primarily to serving local residents (e.g., churches, theaters, libraries)."

"To coordinate the provision and location of specialized types of cultural facilities in this area with facilities throughout the metropolitan region." --
"Constant effort should be made to coordinate the provision and location of specialized cultural facilities in order to avoid unnecessary duplication. An ongoing effort should be made to promote coordinated and cooperative use of specialized region-serving cultural facilities wherever they may be located."

The Library Plan Recommendations are as follows:

- The library at Fifth and Scott Streets, in Covington, should continue to function as the main library for Kenton County. Renovation of this 1974 facility is a top priority for the library district.
- Expansion of the Erlanger branch, which is deficient in both total space and research space, is a top priority for improvement during the planning period.
- Addition of three new branch library facilities, to the existing two, are recommended to be added to the KCPL system. The general locations of these are as follows: one in the vicinity of Dixie Highway and the I-75 Interchange (Map ID 2); one on State Route 16, north of I-275 (Map ID 4); and, the third, in the vicinity of Turkeyfoot Road and Richardson Road (Map ID 6).
- Continued development of free electronic database and Internet access for Kenton County residents, including terminals that can be used in the library and via modems from residents homes.

HEALTH CARE FACILITIES

EXISTING HOSPITAL FACILITIES

There are four general medical/surgical acute care hospitals (licensed facilities which provide medical and/or surgical care and treatment of physical illness or injury, usually for 30 days or less per illness or injury), and two other special purpose hospitals serving Northern Kentucky. The Greater Cincinnati Hospital Council publishes an annual directory which contains more detailed hospital information. The hospitals are described as follows ([see Map 6J](#)):

- St. Elizabeth Medical Center North is located at 401 East 20th Street, in Covington, and was founded in 1861 by the Sisters of St. Francis. Due to the underutilization of acute care beds, 44 of the hospital's acute care beds have

been converted to a skilled nursing unit¹ (11 beds in January of 1991, and 33 beds in January of 1996). A plan has been proposed to convert an additional 31 beds for this purpose.

- St. Elizabeth Medical Center South is located at One Medical Village Drive, Edgewood, KY, and was founded in 1978.
- St. Luke Hospital East is located at 85 North Grand Avenue, Fort Thomas, KY, and was founded in 1954.
- St. Luke Hospital West, the smallest of the four major hospitals, is located at 7380 Turfway Road, Florence, KY. In 1996, construction was underway on eight additional birthing suites and a new emergency out-patient wing.
- HEALTHSOUTH Northern Kentucky Rehab Hospital, a free-standing comprehensive physical rehabilitation hospital, is located at 201 Medical Village, Edgewood, KY. This facility changed its name in January, 1995, when it was bought by HEALTHSOUTH, Inc. of Birmingham, Alabama.
- Children's Psychiatric Hospital of Northern Kentucky, is located at 502 Farrell Drive, Covington, KY. It provides in-patient and day treatment programs for adolescents experiencing social and emotional difficulties, and serves about 50 patients at a time. It is operated by Comprehensive Care.

Hospitals Used by Northern Kentucky Residents in Cincinnati

In addition to the Northern Kentucky hospitals, residents in Northern Kentucky may also use the following hospitals which are located in Cincinnati:

- Bethesda Oak Hospital
- Bethesda North Hospital
- CareUnit Hospital of Cincinnati
- Children's Hospital Medical Center
- Christ Hospital
- Deaconess Hospital of Cincinnati
- Drake Center, Inc.
- Good Samaritan Hospital
- The Jewish Hospital of Cincinnati, Inc.
- Jewish Hospital Kenwood
- Mercy Hospital Anderson
- Pauline Warfield Lewis Center
- Providence Hospital
- St. Francis-St. George Hospital
- Shriner Burns Institute

¹ This type of unit is for patients who are ready to leave the acute care unit of the hospital, but are not ready to go home, or have not found a place in a long term care facility and need additional care. In this case, skilled nursing refers to care which is less intense and less expensive than care in an acute care unit.

- University of Cincinnati Hospital
- Veterans Affairs Medical Center

OTHER HEALTH CARE FACILITIES

Northern Kentucky Family Health Care Centers

The Northern Kentucky Family Health Care Centers are full service medical facilities, and are open 24 hours a day, seven days a week. In addition to primary medical care, they provide dental care, some social services, immunizations, and health education. They serve predominantly low income people from the Northern Kentucky basin area. In 1994, 42,000 people were served. Most of those served are on Medicaid or Medicare, or are uninsured and pay on a sliding scale. The Pike Street facility is specially set up to serve homeless people, and does not require an appointment. The Centers are located at the following addresses:

- 615 Sixth Street, Dayton, KY
- 741 Central Avenue, Newport, KY
- 1132 Greenup Street, Covington, KY
- Lee and Robbins (Pike Center), Covington, KY

Long Term Care Facilities

Long Term Care is defined as medical, social, and personal care services on a continuous or intermittent basis to persons with chronic physical or mental conditions. Some facilities offer "personal care" beds only, which includes help with bathing, dressing, and dispensing of medications for those who are able to walk, while others offer more intensive nursing care for the bedridden ("nursing beds"). Some facilities are specifically for the elderly, while others offer a combination of care levels for a variety of ages and disabilities ([See Table 6-15](#)).

The need for long term care is increasing because of advances in health care which have allowed people to live longer with chronic illnesses, and also because of the fact that the elderly, who are most likely to have a long term illness, are the fastest growing segment of the population. Many of the long term facilities have high occupancy rates, and even waiting lists, particularly those which offer more intense levels of nursing care.

HEALTH CARE ISSUES

The concept of a hospital as being a large single site facility is changing. Increasingly, hospitals are becoming multi-site systems which provide a continuum of health care services ranging from primary care through acute and chronic care, and even include preventative and home care. This is because advances in health care technology have made it possible to deliver more care in outpatient and home care settings, and

TABLE 6 - 15
INVENTORY OF LONG TERM NURSING
AND PERSONAL CARE FACILITIES

NAME OF FACILITY	POPULATION	NURSING BEDS	OCCUPANCY RATE	PERSONAL CARE BEDS	OCCUPANCY RATE
Garrard Convalescent Home Covington, KY	Any age, physically and mentally challenged	63	100%	0	N/A
Madonna Manor Villa Hills, KY	Elderly only	35	100%	25	100%
Rosedale Manor Covington, KY	Any age, physically and mentally challenged	180	100%	60	100%
St. Charles Care Center Covington, KY	Any age, physically and mentally challenged	149	100%	0	N/A
St. John's Nursing Home Covington, KY	Any age, physically and mentally challenged	367	94%	23	39%
Covington Ladies' Home Covington, KY	Elderly only	0	N/A	36	46%
Regency Manor Covington, KY	Elderly only	0	N/A	50	85%

SOURCE: Northern Kentucky Area Planning Commission survey of existing facilities.
PREPARED BY: Northern Kentucky Area Planning Commission.

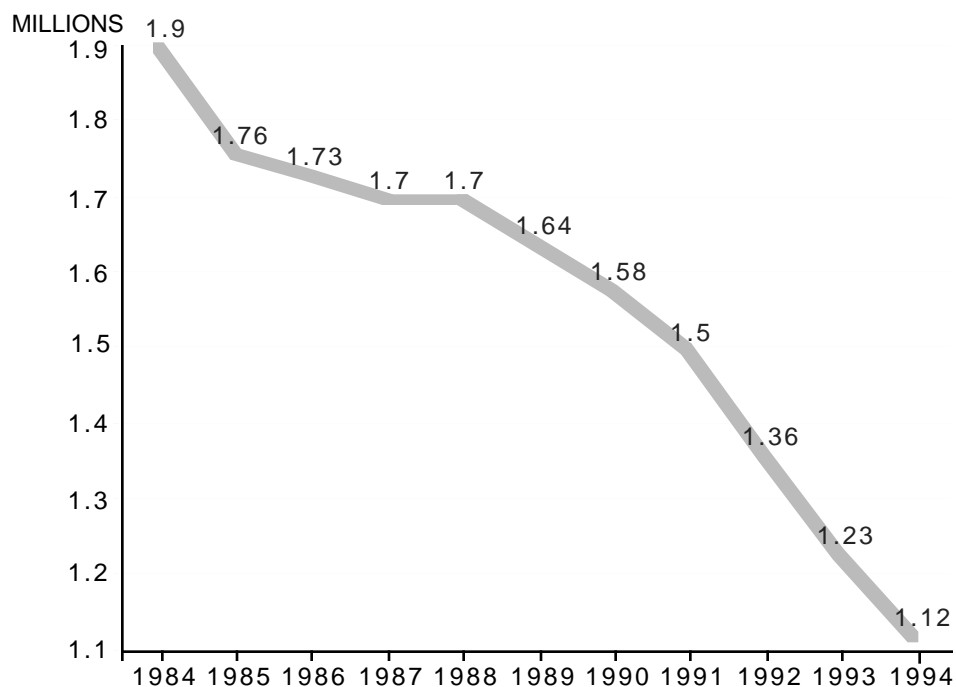
because third party payers, including Medicare, Medicaid, and private insurance, are increasingly concerned with cost containment. The emphasis on controlling costs has not only supported the transfer of care from inpatient to outpatient and home care settings, but has also resulted in a demand for more integrated and coordinated care which is more cost effective.

These factors have resulted in major changes in hospital utilization, as illustrated on the following graphs (Figures 1 through 3):

- Decrease in Inpatient Days Between 1984 and 1994

A major trend in health care in Greater Cincinnati has been the dramatic decline in acute care inpatient days from 1984 to 1994. In 1984, residents of Greater Cincinnati (including Northern Kentucky) spent 1.9 million days as patients in acute care beds; by 1994, that number had dropped to 1.12 million (Figure 1).

FIGURE 6-1
INPATIENT DAYS FOR THE GREATER
CINCINNATI AREA: 1984 -1994

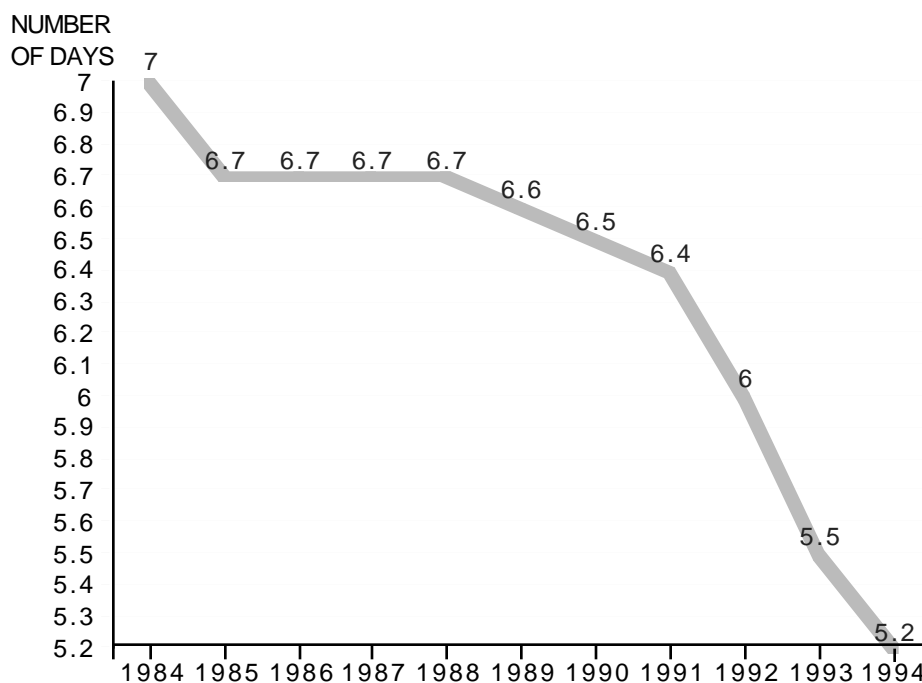


SOURCE: Greater Cincinnati Hospital Council Annual Hospitalization Survey, 1995.

- Decrease in the Average Length of Hospital Stay from 1984 to 1994

Figure 2 shows the decrease in average length of stay in acute care hospital beds in Greater Cincinnati from 7 days in 1984, to 5.2 days in 1994.

FIGURE 6-2
AVERAGE LENGTH OF HOSPITAL STAY IN THE
GREATER CINCINNATI AREA:
1984 - 1994

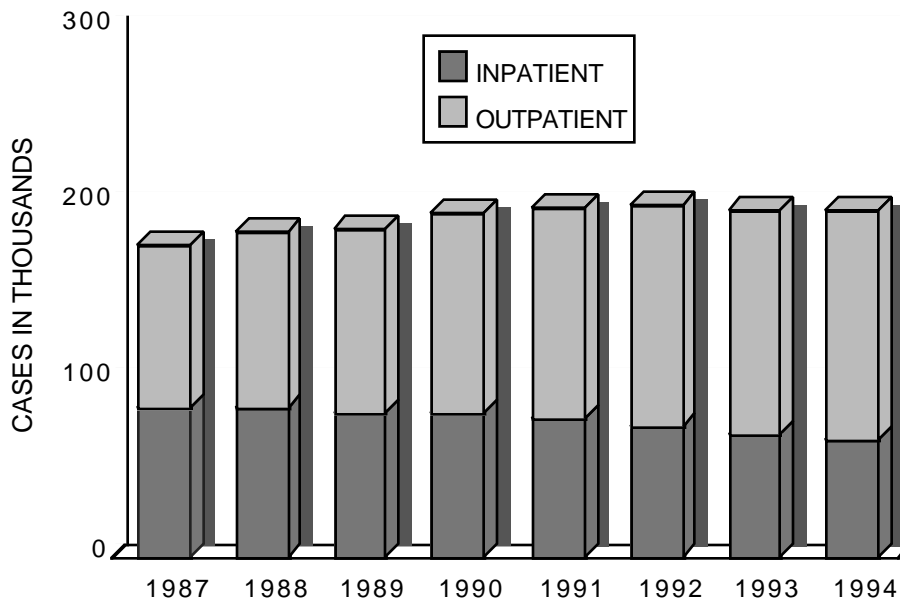


SOURCE: Greater Cincinnati Hospital Council Annual Hospitalization Survey, 1995.

- Decrease in Inpatient Surgical Cases and Corresponding Increase in Outpatient Surgical Cases from 1987 to 1994.

More people today are having surgery done on an outpatient basis rather than staying in the hospital to recover. Figure 3 shows a decrease in inpatient surgical cases as compared to an increase in outpatient surgical cases in hospitals in Greater Cincinnati from 1987 to 1994

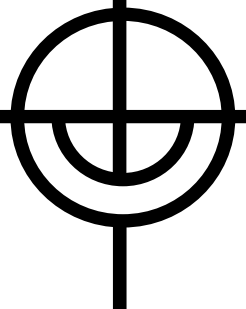
FIGURE 6-3
SURGICAL CASES IN THE GREATER
CINCINNATI AREA: 1987 - 1994



SOURCE: Greater Cincinnati Hospital Council Annual Hospitalization Survey, 1995.

Because of these changes, some hospitals, such as St. Elizabeth Center North, have been converting a portion of acute care beds into other uses, such as skilled nursing, hospice and administrative space for home health care, and adding new outpatient facilities. Also, large hospitals are dispersing their services geographically by creating other delivery sites such as occupational health group practice, diagnostic, birthing and Urgent Care Centers. For example, the Summit Medical Group, which is a subsidiary of St. Elizabeth, is constructing a medical office building on Walton-Nicholson Road (KY) south of Independence, near KY 17. The implications of these trends are that land use decisions will involve a larger number of smaller sites, however, much of the land use decision criteria for evaluating site selection will be the same as in the past. For example, two criteria that will continue to be important are proximity of the health facility to a population center, and provision of adequate transportation access.

CHAPTER VII
WATER SUPPLY AND
WASTE MANAGEMENT



CHAPTER VII

WATER SUPPLY AND WASTE MANAGEMENT

GENERAL

Water Supply and Waste Management Plans included within the 1972 Area-Wide Comprehensive Plan and Updates completed in 1981, 1986 and 1991, recommended plans for water supply systems, sanitary sewerage facilities, solid waste management, and measures to improve stormwater management. Water supply in Kenton County is provided by Kenton County Water District No. 1, which will be renamed Northern Kentucky Water Service District, as a result of consolidation legislation passed by the Kentucky General Assembly in 1996 and merger with Campbell County Water District, effective January, 1997. The Northern Kentucky Water Service District will serve the majority of the urban area within Kenton County and portions of Boone and Campbell Counties. Individual water agencies within the three-county area which currently purchase water from Kenton County Water District No. 1 at bulk or wholesale rates for distribution to their customers, will similarly purchase water from the new District.

Sanitation District No. 1 of Campbell and Kenton Counties (renamed Sanitation District No.1, as a result of consolidation legislation passed by the Kentucky General Assembly in 1994), serves a major portion of the urban area in Kenton County with centralized treatment provided at the Dry Creek Wastewater Treatment Plant. This wastewater treatment plant, constructed in 1979, also serves large areas within Campbell County, the city of Florence and other areas within Boone County. Individual cities, including Independence and Latonia Lakes in Kenton County, Alexandria in Campbell County, and the city of Florence in Boone County, which own their own systems, connect to main interceptor systems of Sanitation District No. 1 for treatment of wastewater generated within their service areas.

Stormwater management within municipalities and industrial point discharges are affected by amendments to the federal Clean Water Act of 1972, as amended by the Water Quality Act of 1987. Municipalities which had a population over 100,000, and separate storm and sanitary sewer systems, had to satisfy the requirements by May 17, 1993. Municipalities with a population of less than 100,000, with separate storm and sanitary sewer systems are not currently covered by the act, but identification of a jurisdictional unit in Northern Kentucky to cover these areas, so that they will be subject to the same requirements, is under consideration.

Solid Waste Management in Kenton County has changed significantly from previous Plan Updates, and, with the exception of one publicly owned solid waste transfer station in Covington, is dependent upon private contracts with cities for collection and disposal of solid wastes. Currently, privately owned landfills are utilized in Boone and Pendleton Counties. Wastes formerly hauled to Hamilton County, Ohio are now hauled to a Pendleton County site as a result of changes to state law and tipping fees. Solid Waste Management in Kentucky continues to change as a result of amendments to federal and state laws based upon the original Senate Bill 2 in the 1990 session, as

amended.

Water Supply and Waste Management Plans include recommendations concerning major water treatment plants, primary transmission mains, pumping and storage facilities, wastewater treatment plants, sewage lift stations, major interceptors and outfalls, a multi-county solid waste management plan, and measures to improve stormwater management practices.

As with other elements of this Comprehensive Plan, the KC&MP&ZC/NKAPC has coordinated this update with input from citizen focus groups, contributed at the public "town meeting" held at Thomas More College, in August 1995. Ongoing plans by engineering consultants relating to water supply, wastewater treatment, solid waste and stormwater, are also incorporated.

WATER SYSTEMS

WATER DISTRICTS CONSOLIDATION AND DISTRIBUTION

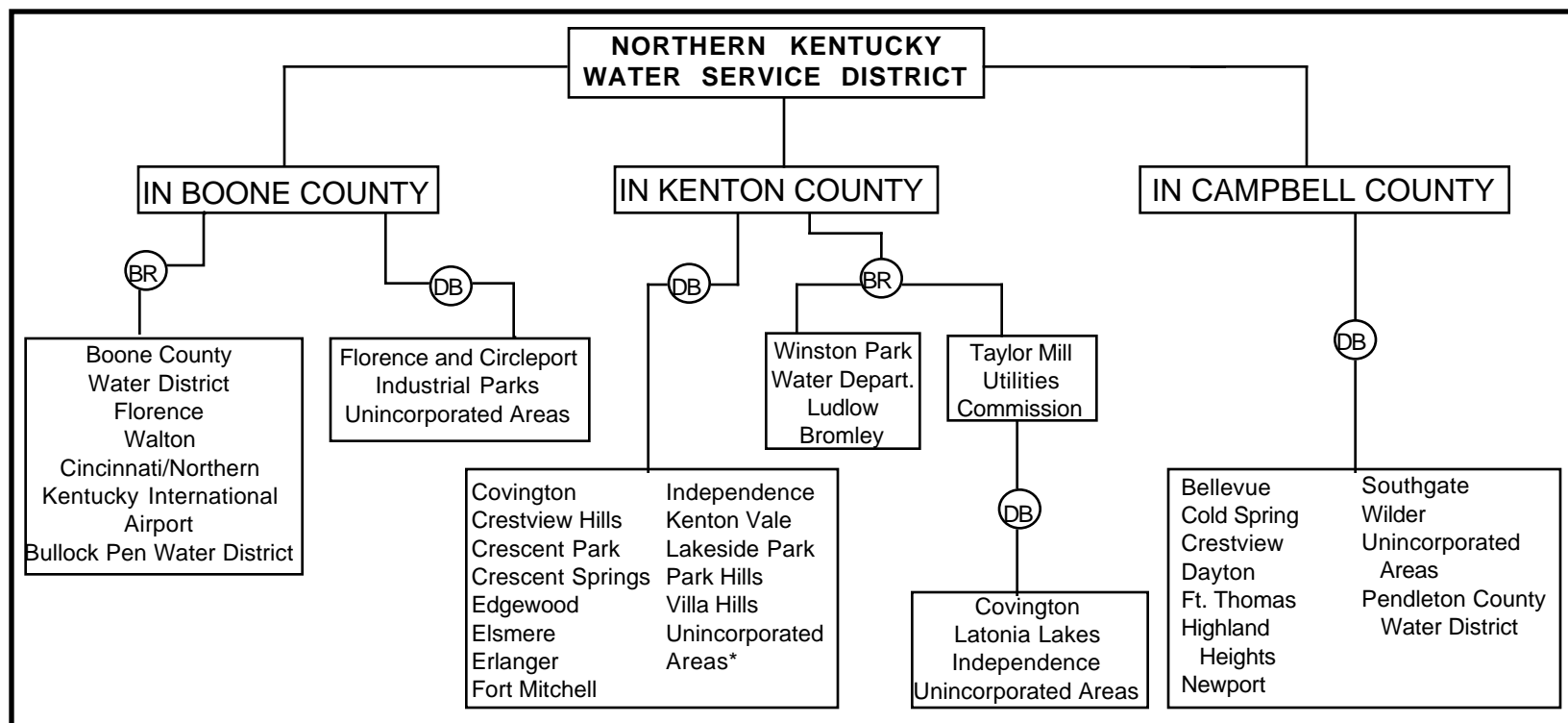
Merger of two major water supply systems, operated by the City of Covington and Kenton County Water District No. 1, occurred by referendum of the voters in 1977. In 1996, the Kentucky General Assembly enacted legislation approving consolidation of the Kenton County Water District No. 1 and Campbell County Water District, effective January 1, 1997, as stated above. The new District was named the Northern Kentucky Water Service District and became the major water supplier in Northern Kentucky.

The other four water agencies (i.e., cities and special purpose districts) responsible for operation and management of water services in Kenton County, include the cities of Bromley and Ludlow, Taylor Mill Utilities Commission, and the Winston Park Water Department. There are also agencies in Boone and Campbell Counties, including the Boone County Water and Sewer District, the cities of Florence and Walton in Boone County, the Campbell County Water District, the city of Newport in Campbell County, the Cincinnati/Northern Kentucky International Airport in Boone County, and other large industries.

Due to the proliferation of separate water agencies, distribution of finished water to these agencies is accomplished on a bulk rate basis. Distribution of finished water to residential, commercial and industrial customers is provided on a direct billing basis.

[Figure 7A](#) illustrates the relationship of Water Distribution by Supplier to customers and agencies within the three - county Northern Kentucky area.

FIGURE 7A
WATER DISTRIBUTION BY SUPPLIER
PROCESS FLOW CHART



BR - Bulk or wholesale rate customers.

DB - Direct billing Includes customers within municipalities and portions of unincorporated areas.

-Taylor Mill Utilities Commission supplies customers within Taylor Mill and portions of Covington, Latonia Lakes, Independence, and unincorporated areas.

-Water Service District supplies various fire departments and fire protection districts, when needed.

-No attempt is made to show further breakdown outside jurisdiction of Northern Kentucky Area Planning Commission.

*Portion of Unincorporated Area within southwest Kenton County is served by Bullock Pen Water District from Grant County.

SOURCE: Kenton County Water District No. 1.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

EXISTING WATER SYSTEM IMPROVEMENTS AND CONSOLIDATION STUDY

Since the 1991 Plan Update, a number of water system improvement projects and a study have been completed. The projects are identified as follows:

- New settling basin to handle 44 MGD (million gallons per day) and a sludge handling filter press process at Fort Thomas Water Treatment Plant;
- Modifications at Taylor Mill Water Treatment Plant, including sludge handling filter press process;
- Modifications to water intake structures to lessen the problem with growth of zebra mussels;
- Additional 42-inch raw water supply to supplement twin 30-inch lines between the Ohio River and Fort Thomas Water Treatment Plant and new pump station;
- 16-inch transmission main to Taylor Mill Water Treatment Plant eliminating the Grand Avenue pump station;
- New pump station (map code K16) along Bristow Road to supplement the Independence tank;
- New pump station (map code C1) along Ohio River to supplement existing raw water intake;
- Supervisory Control and Data Acquisition (SCADA) System for central monitoring which allows automatic "radio control" operation and monitoring of thirteen (13) pump stations plus Florence Mall Tank and all storage tanks;
- Fourth pump added at Dudley Station (map Code K11) plus bulk chlorine equipment;
- 24-inch transmission main from Tichenor Middle School through Elsmere to the Devon Tank;
- Upsizing 16-inch planned systems within Deer Chase Subdivision for serving future development along Narrows and Nelson Roads;
- 16-inch transmission main along and under I-275 between Fidelity Park and Sandman Drive;
- 12-inch transmission main along Wilson Road to supplement Walton;
- Subdistrict A - 8-inch PVC water main along Marshall Road, Mills Road, Stewart Drive, Decoursey Pike, Manor Lake Drive, Riggs Road, Bowman Road, TeeGarden Lane, Hickory Drive and Dorman Road;

- Subdistrict B - 16/8-inch PVC water main extensions along Madison Pike, Bird Road, Wynwood Trail, Moffett Road, Martin Road and Rector Road;
- Subdistrict R - 12/8-inch Ductile iron and PVC water main extensions along Decoursey Pike, Porter Road, Feiser Road, Locust Pike, Red Row Lane, Wards Lane, Whites Road, Coleman Road and other roads within Ryland Lakes Country Club; and
- Other remaining system improvements from the approximate \$37 million Kenton County Water District Capital Improvements Plan, beginning in the year 1987.

NOTE: Majority of water systems within Subdistricts A,B and R are within the Non-Urban Service Area.

Facilities abandoned from service since the last Plan Update include four booster pump stations identified as follows: a) LaFayette Avenue in Erlanger; b) Turkeyfoot Road in Elsmere; c) Grand Avenue and Reidlin Road in Taylor Mill; and d) Kyles Lane in Fort Wright.

Information pertaining to Booster Pumping Station Facilities and Water Storage Facilities has been updated to reflect changes during the previous five years (see Tables 7-1 and 7-2). Major facility improvements to the Water System have been updated and illustrated on Map 7A. Historical and projected water demands submitted by the water district indicated the following: production of finished water at Fort Thomas Water Treatment Plant on an average day - 27.5 MGD (Year 1995); maximum day water demand of 48.2 MGD occurred on July 31, 1995; projected maximum daily production - 63.5 MGD (Year 2000); 84.8 MGD (Year 2010) includes Campbell County as a customer; projected average daily production 37 MGD (Year 2000); 40 MGD (Year 2010). Other information pertaining to water consumption and storage data is being kept current in the offices of the NKAPC.

The Northern Kentucky Water Consolidation Feasibility Study by Quest Engineering and CH2M Hill consultants was completed in June of 1994. It included a Fatal Flaw Analysis and alternatives for consolidating distribution utilities and formulation of a region-wide water supply commission phasing in over a seventeen (17) year period. This is the consolidation, previously described above, which has been recently approved by the Kentucky General Assembly for the merger of Kenton County Water District No. 1 and Campbell County Water District, effective January 1, 1997.

TABLE 7-1
BOOSTER PUMPING STATION FACILITIES
KENTON COUNTY WATER DISTRICT NO. 1
(SUPPLIER)

MAP CODE	STATION LOCATION	NO. OF UNITS	PUMP TYPE	YEAR INSTALLED	HORSE POWER	VOLTS REQ'D	PUMP CONTROL	RATING PER PUMP (gpm)	TDH (feet)
C1	Ohio River Raw Water Pumping Station	1	VC	1986	1250	4,160	AUTO	7,400	435H
		2	VC	1990	1250	4,160	AUTO	7,400	435H
		3	VC	1981	1250	4,160	AUTO	7,400	435H
		4	VC	1981	1250	4,160	AUTO	10,417	435H
		5	VC	1994		4,160	AUTO	9,000	437H
K1	Licking River Raw Water Pumping Station	1	VT	1990	350	440	AUTO	8,333	126H
		2	VT	1971	250	440	AUTO	6,250	126H
		3	VT	1993	150	440	AUTO	4,900	126H
K2	Taylor Mill Treatment Plant	1	VT	1982	600	2,300	AUTO	6,945	250H
		2	VT	1954	450	2,300	AUTO	3,472	385H
		3	VT	1954	450	2,300	AUTO	3,472	385H
		4	VT	1974	1250	2,300	AUTO	6,945	490H
		5	VT	1974	1250	2,300	AUTO	6,945	490H
		6	VT	1982	600	2,300	AUTO	6,945	250H
K3	Latonia Avenue and 35th Street	1	HC	1953	75	440	AUTO	500	400H
		2	HC	1953	75	440	AUTO	500	400H
K4	Dixie Highway	1	HC	1925	125	440	AUTO	900	260H
		2	HC	1925	125	440	AUTO	900	260H
K5	West Covington	1	VC	1987	40	440	AUTO	1,600	60L
		2	VC	1987	40	440	AUTO	1,600	60L
K6	West Street and Parkway Avenue	1	HC	1956	30	440	AUTO	250	289H
		2	VC	1956	30	440	AUTO	250	289H
K7	Bromley	1	VT	1986	75	440	AUTO	700	315H
		2	VT	1986	75	440	AUTO	700	315H
		3	VT	1968	60	440	AUTO	500	340H
K10	Dudley Pike in Edgewood 1040 System	1	VT	1965	250	440	AUTO	2,825	270H
		2	VT	1965	250	440	AUTO	2,825	270H
		3	VT	1965	250	440	AUTO	2,825	270H
		4	VT	1979	250	440	AUTO	2,222	375H
K11	Dudley Pike in Edgewood 1080 System	5	VT	1990	600	460	AUTO	6,000	282H
		6	VT	1990	600	460	AUTO	6,000	282H
		7	VT	1990	600	460	AUTO	6,000	282H
		8	VT	1994	600	460	AUTO	6,000	282H
K12	Hands Pike in Covington	1	VT	1983	75	440	AUTO	500	426H
		2	VT	1983	75	440	AUTO	500	426H
K13	Richardson Road in Erlanger	1	VT	1981	400	440	AUTO	2,100	515H
		2	VT	1981	400	440	AUTO	2,100	515H
K16	Bristow Road in Independence	1	VT	1995	20	460	AUTO	900	64L
		2	VT	1995	20	460	AUTO	900	64L

NOTES: All facilities shown above are owned by the Kenton County Water District No. 1.
 ABBREVIATIONS: TDH - Total Dynamic Head, VT - Vertical Turbine, HC - Horizontal Centrifugal, VC - Vertical Centrifugal, AUTO - Automatic, H - High Service Level (1080), L - Low Service Level (1040), gpm (gallons per minute).
 SOURCE: Kenton County Water District No. 1.
 PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

**TABLE 7-2
WATER STORAGE FACILITIES
KENTON COUNTY
(SUPPLIER)**

MAP CODE	STORAGE LOCATION	YEAR IN SERVICE	TYPE OF STORAGE	STRUCTURE HEIGHT (feet)	BASE ELEVATION (feet)	TOP ELEVATION (feet)	OVERFLOW ELEVATION (feet)	NORMAL HIGH WATER ELEVATION (feet)	NORMAL LOW WATER ELEVATION (feet)	LARGEST DIAMETER (feet)	CAPACITY (gallons)
B26	Florence Mall ⁽²⁾	N/A	Hydropillar	135	910.8	1045.3	N/A	N/A	N/A	74	1,000,000
B27	Oblique Street Florence ⁽²⁾	N/A	Elevated Tank	154	937.5	1,091.0	1,084.0	1,081.0	1,076.0	50	500,000
B28	Industrial Park	1961	Hydropillar	146	945.5	1,091.5	1,083.5	1,081.0	1,062.0	50	500,000
B29	Devon U.S. 25	1991	Hydropillar	N/A	939.5	N/A	1,082.0	N/A	1,042.0	100	2,000,000
C2	Fort Thomas Plant	1936	Clearwell	31	734.0	765.3	764.5	762.0	760.0	N/A	3,000,000
C2	Fort Thomas Plant	1990	Clearwell	35	730.0	778.5	764.5	763.5	757.5	130	3,500,000
K2	Taylor Mill Plant	N/A	Clearwell	15	509.5	524.5	522.0	520.0	518.0	N.A.	1,000,00
K16	Bromley	1966	Ground Storage	103	670.0	773.0	764.0	763.0	750.0	75	1,000,000
K17	Devou Park	1973	Standpipe	95	869.5	964.5	959.5	954.5	954.5	30	475,000
K18	Barrington Road	1969	Hydropillar	141	916.5	1,057.5	1,046.7	1,045.0	1,040.0	74	1,000,000
K19	Ida Spence	1952	Elevated Tank	175	840.0	1,015.0	1,005.0	1,003.0	1,000.0	57	500,000

NOTES: Elevation is referenced to USGS Mean Sea Level Datum.
 All Facilities shown above are owned by the Kenton County Water District No.1, except for the following:
 (1) Owned by the Taylor Mill Utilities Commission;
 (2) Owned by the City of Florence.

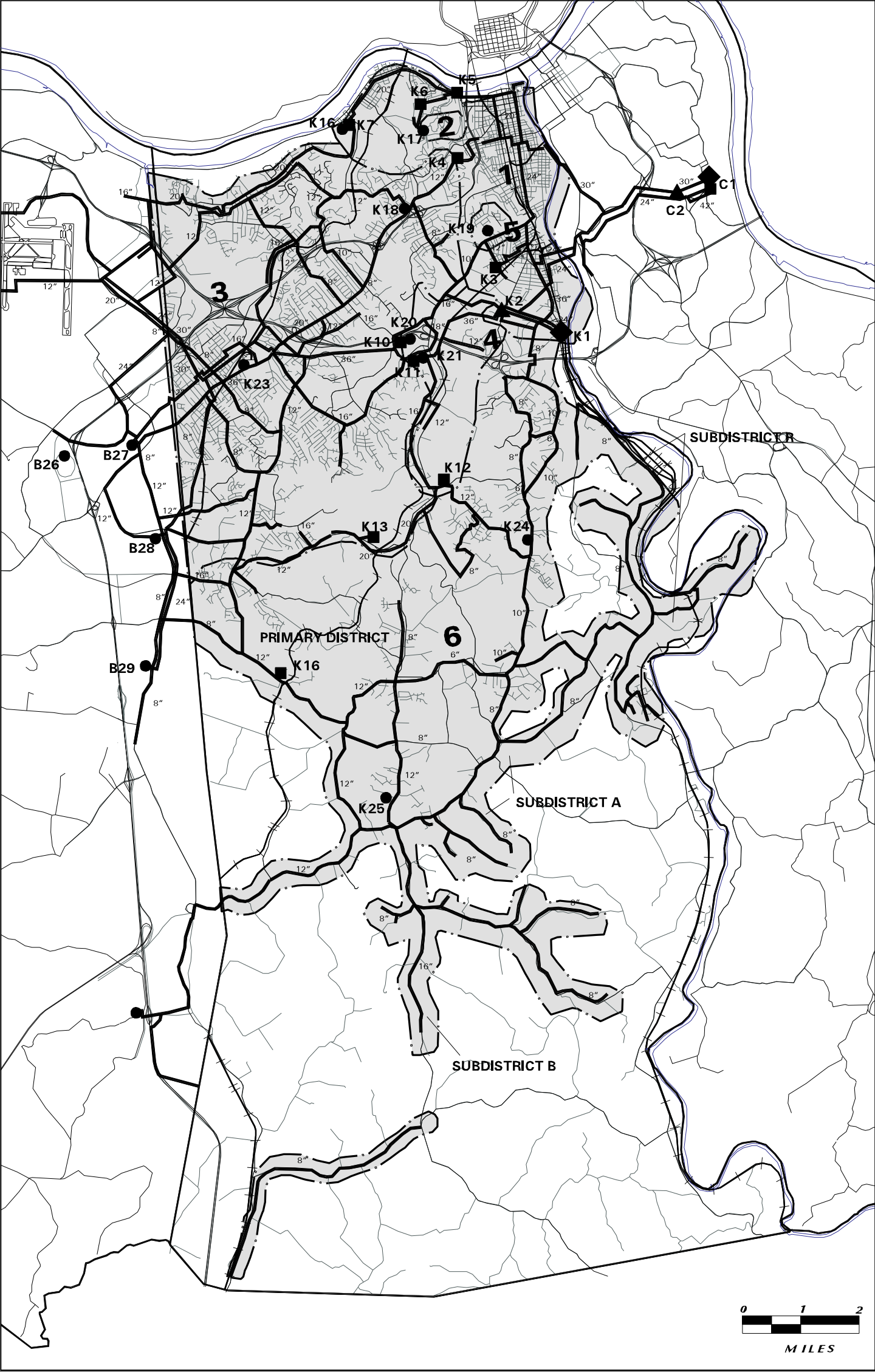
SOURCE: Kenton County Water District No. 1.
 PREPARED: Northern Kentucky Area Planning Commission, 1996.

TABLE 7-2 (CONT.)
WATER STORAGE FACILITIES
KENTON COUNTY
(SUPPLIER)

MAP CODE	STORAGE LOCATION	YEAR IN SERVICE	TYPE OF STORAGE	STRUCTURE HEIGHT (feet)	BASE ELEVATION (feet)	TOP ELEVATION (feet)	OVERFLOW ELEVATION (feet)	NORMAL HIGH WATER ELEVATION (feet)	NORMAL LOW WATER ELEVATION (feet)	LARGEST DIAMETER (feet)	CAPACITY (gallons)
K20	Dudley Pike	1964	Ground Storage	59	831.0	889.5	876.0	874.0	866.0	140	5,000,000
K21	Dudley Pike	1990	Ground Storage	59	831.0	889.5	876.0	874.0	866.0	140	5,000,000
K23	Kenton Lands Road	1953	Elevated Tank	158	896.0	1,054.0	1,045.0	1,043.0	1,033.0	50	500,000
K24	Taylor Mill ⁽¹⁾	N/A	Standpipe	143	870.0	1,013.0	1,010.0	1,008.0	968.0	20	329,000
K25	Independence	1981	Hydropillar	137	943.5	N/A	1,080.0	N/A	1,039.5	74	1,000,000

NOTES: Elevation is referenced to USGS Mean Sea Level Datum.
All Facilities shown above are owned by the Kenton County Water District No.1, except for the following:
(1) Owned by the Taylor Mill Utilities Commission;
(2) Owned by the City of Florence.

SOURCE: Kenton County Water District No. 1.
PREPARED: Northern Kentucky Area Planning Commission, 1996.



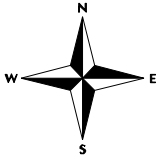
WATER SERVICE AREAS *

1. Covington Low
2. Devou Park High
3. Dixie Highway and Boone County High (Includes Florence)
4. Madison Pike Low
5. Southwest Covington High
6. Taylor Mill - Independence High

* Kenton County Water District No. 1 (Supplier)

NOTES:

- Other water service areas within Campbell County may be served via emergency connection from Kenton County Water District #1 (Supplier).
- Water service area within southwest Kenton County served by Bullock Pen Water District from Grant County .



NORTHERN KENTUCKY AREA PLANNING COMMISSION

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1996 COMPREHENSIVE PLAN
KENTON COUNTY, KENTUCKY

EXISTING WATER SYSTEM

- Water Storage Facility
- Water Pumping Station
- ▲ Water Treatment Plant
- ◆ Surface Source (Intake Facility)
- Primary Distribution Main
- Existing Water Service Area
- K18 Text Reference Numbers (See Tables 7-1 and 7-2)

PREPARED BY
NORTHERN KENTUCKY AREA PLANNING COMMISSION

RECOMMENDED WATER SYSTEM PLAN

Recommended improvements within this Plan Update are based on a twenty year planning period. Planned improvements by Kenton County Water District No. 1, applicable to Kenton County, have been incorporated within this plan update. General recommendations within previous Water System Plans, were listed under sections entitled: Urban Development and Water System Expansion; Pumping Stations and Distribution Systems; and Recommended Improvements for Water Treatment Plants, Raw Water Supplies, and Distribution Systems, within six specific "water service areas" in Kenton County. All recommendations made at that time (except for those improvements listed as complete) are still valid for implementation within a twenty year planning period, except as modified, within the following sections.

Urban Development and Water System Expansion

The Water System Plan is based on the relationship between urban growth and water system needs. Areas recommended for development have been evaluated on the ability to be provided with economical and adequate water system facilities before being encouraged to develop at urban densities. At the same time, improvement and expansion of water systems, particularly the staging of construction, should be designed to encourage planned and orderly growth and to discourage undesirable development patterns. Recommended improvements within this Plan Update are as follows:

1. The Northern Kentucky Water Consolidation Feasibility Study, completed by Quest Engineering and CH2M, June, 1994, recommended merger of water districts, commissions, and other city systems where practicable. The goals of the study were to evaluate the feasibility of consolidating two or more existing Northern Kentucky water utilities; and, if consolidation was deemed feasible, to recommend a plan for consolidation. There were no fatal flaws identified with regard to consolidation of Northern Kentucky water utilities. However, the Study indicated that single specific consolidation of all Northern Kentucky water utilities was not a viable option because of the varied legal structures, size, financial and technical capabilities, and facilities of the existing utilities. Rather, a framework for consolidation was developed and recommended as one that will meet the consolidation goals as established by the Management Advisory Committee overseeing the study.

The recommended consolidation, approved by the Kentucky State Legislature in 1996, (effective January 1, 1997) provides government and utility officials the maximum degree of flexibility in the decision making and implementation process. Issues such as board representation and paying for new and replacement infrastructure can be resolved through careful negotiations. Rate equity can be achieved through a detailed rate transitioning process. Consolidation is not expected to result in an immediate reduction in the present cost of service. Rather, economies in operations gained through consolidation should result in a dampening or flattening of future rate increases.

2. It is recommended that rehabilitation of existing water systems, as well as provision of new systems be carried out in accordance with the Insurance Services Office (ISO) Fire Suppression Rating Schedule, and the National Fire Protection Association (NFPA) Fire Protection Handbook. The following factors should be considered: Public Protection Fire Rating Classifications, Needed Fire Flows, Fire Flow Testing, Fire Hydrant Distributions, Water Main Sizes, and Fire Hydrant Spacing.

The rehabilitation program should be accelerated to include maintenance, replacement, and/or reconstruction of aged, undersized, and/or deteriorated water distribution systems in Kenton County. Most of these communities are within the "Urban Service Area" of Kenton County. Fire hydrant flow tests conducted by local fire departments, the water district, or other water agencies, have indicated deficiencies in some areas in the availability of water supply for fire protection. These flow tests provide documentation that some areas of existing development have inadequate water supply (less than 500 gallons per minute at residual pressures of less than 20 pounds per square inch) to afford adequate fire protection in accord with the ISO and NFPA guidelines. Further evaluation and analyses of water supply systems must be made before such systems are expanded to serve new developments.

3. It is recommended that water quality of public water supply extensions into the Non-Urban Service Areas, as identified within this Plan Update, continue to be monitored. Non-Urban Service Area refers to rural or agricultural uses, and single-family residential development at very low densities (e.g., less than one dwelling unit per one acre). [\(Refer to Chapter V for further discussion concerning the Non-Urban Service Area.\)](#) The danger is that because of the limitations of on-site waste disposal systems, provision of centralized water systems will likely result in overloading the capacity of these systems causing unacceptable environmental conditions and health hazards could result. Therefore, if unacceptable environmental hazards exist, and decisions are still made to continue the extension of water systems in rural areas without extending centralized sanitary sewerage facilities, then the KC & MP & ZC's adoption and enforcement of stringent subdivision requirements, for application in these areas, may be a reasonable and sound next step as a means to further control new development. (See Recommended Sewerage System Plan entitled Alternative Wastewater Systems for Rural Developments within the Non-Urban Service Areas.)
4. It is recommended that water distribution systems within existing and new developments be interconnected or looped, wherever feasible, to improve circulation of potable water supply. Amendments to water regulations by the State of Kentucky impose rigid requirements regarding water quality for drinking water, including measures for chemical testing, fire hydrant flushing at least 2 or 3 times per year, etc., to further ensure against stagnated areas causing lower levels of chlorine residual associated with health problems. The document prepared by the water district, entitled "Should I Drink My Tap Water", is

available for further information.

5. It is recommended that new water systems within the Plan's Urban Service Areas be extended to include all areas of proposed urban development. At the public town meeting, held in August, 1995, the priority which ranked third, was: "Construction of infrastructure should take place before development occurs." Too often, new developments must rely on existing systems within the immediate area which are undersized, or have not been interconnected sufficiently to afford adequate fire protection. Proper planning for infrastructure improvements before developing an area, will benefit everyone in the community.

[Map 7B](#), Water System Plan, has been updated to reflect recommended modifications, to the water system serving Kenton County. It should be recognized that proposed improvements are limited to major facilities and do not include all additions and improvements to secondary distribution systems or subdivisions unless such systems have impact on the regional system. Water system modifications, to the previous Water System Plan Update including Water Treatment Plants and Raw Water Supplies, Transmission Systems, Pumping Stations, and Storage Facilities, are described more specifically as follows:

Water Treatment Plants and Raw Water Supplies

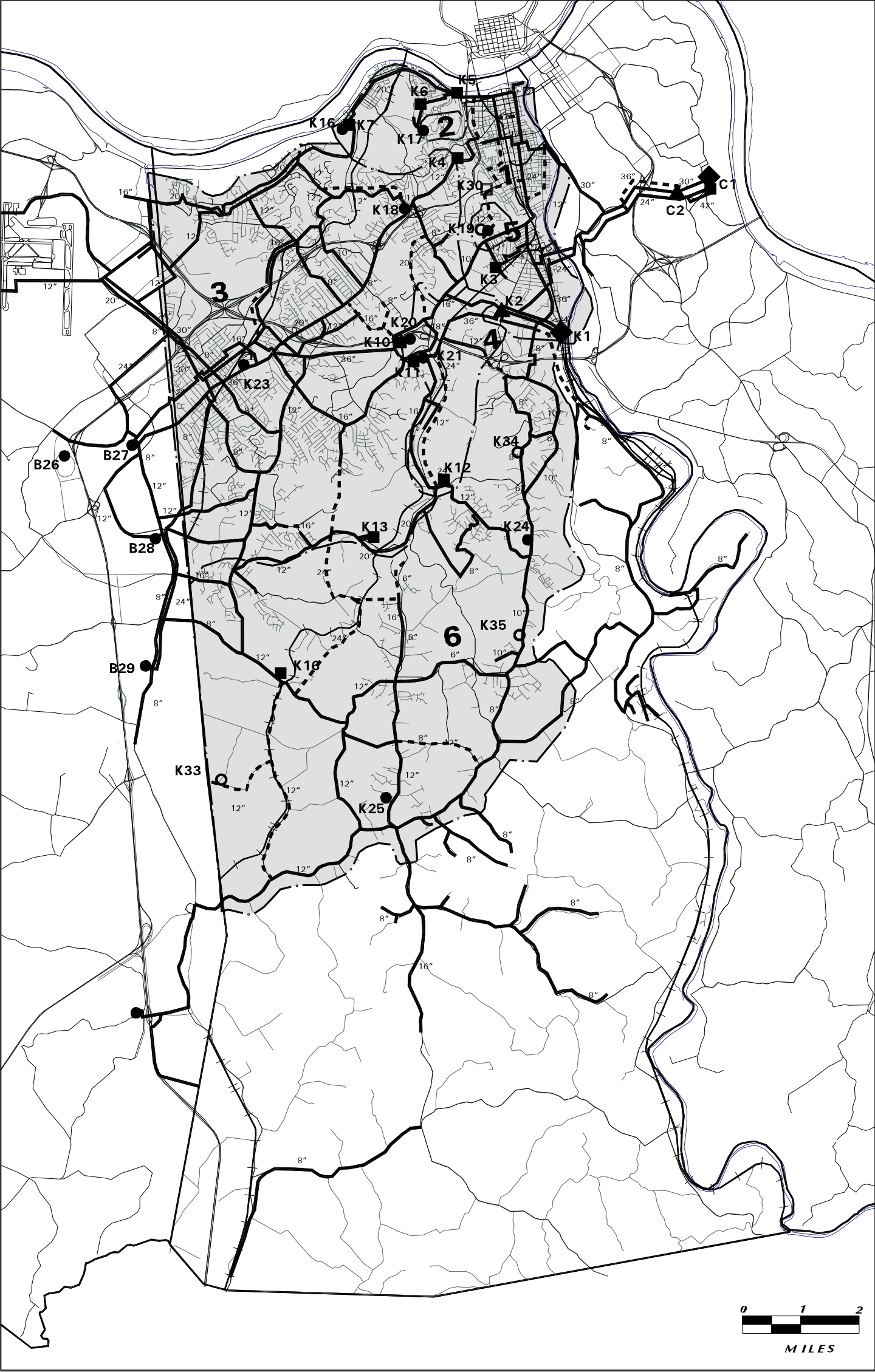
- *• Expansion of one or both existing water treatment facilities in Fort Thomas (map code C2) and Taylor Mill (map code K2) or another alternative should be initiated to provide adequate water supply for all service areas.

The water district has initiated discussions and estimates regarding the feasibility of additional water treatment facilities along the Ohio River in Boone County, or another supply connection with Cincinnati Water Works facilities in Ohio spanning or tunneling the Ohio River. To this extent, any expansion of major facilities outside of Kenton County must be considered as an integral part of existing facilities in Kenton County to ensure adequate water supply for all service areas.

Transmission Systems

- New 36-inch primary water transmission main along U.S. 27 and Moock Road between the water treatment plant in Fort Thomas and Waterworks Road.

* Planned short-term improvements by Kenton County Water District No. 1 based on a twenty (20) - year plan by water district consultants for anticipated growth.



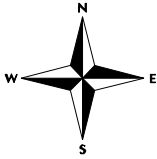
WATER SERVICE AREAS *

1. Covington Low
2. Devou Park High
3. Dixie Highway and Boone County High (Includes Florence)
4. Madison Pike Low
5. Southwest Covington High
6. Taylor Mill - Independence High

* Kenton County Water District No. 1 (Supplier)

NOTES:

- Other water service areas within Campbell County may be served via emergency connection from Kenton County Water District #1 (Supplier).
- Water service area within southwest Kenton County served by Bullock Pen Water District from Grant County .



NORTHERN KENTUCKY AREA PLANNING COMMISSION

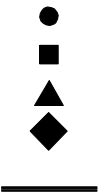
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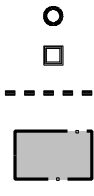
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1996 COMPREHENSIVE PLAN
KENTON COUNTY, KENTUCKY

WATER SYSTEM PLAN



Water Storage Facility
Water Pumping Station
Water Treatment Plant
Surface Source
(Intake Facility)
Primary Distribution Main



Proposed Water Storage Facility
Proposed Water Pumping Station
Proposed Distribution Main

Recommended Water Service Area

Text Reference Numbers
(See Tables 7-1 and 7-2)

- New 16-inch primary transmission main along Crescent Springs - Erlanger Road, from I-275 to I-75, for increasing supply to north Dixie Highway water service area from the Kenton Lands Tank in Erlanger.
- New 16/12-inch primary transmission main, along Narrows Road, from Richardson Road, to interconnect existing systems in Erlanger.
- Upsizing the 10-inch to 12-inch primary transmission main, along Barrington and Morris Roads, from water storage tank to Amsterdam Road in Fort Wright.
- *• New 24-inch primary transmission main along Madison Pike, from I-275 south to Hands Pike in Covington.
- New 12-inch primary transmission mains along Banklick Road, between Bristow Road and Walton Nicholson Pike (KY. 16), interconnected westwardly with water supply via Boone County in unincorporated Kenton County.
- New 16-inch primary water transmission main generally extending north-south between existing main along Charter Oak, Richardson and Bristow Roads for interconnecting major systems in Edgewood, Erlanger, and Independence.
- *• New 12-inch primary transmission main along Harris Pike between Madison Pike and Taylor Mill Road.
- *• New 24/8-inch primary transmission main, between Richardson Road near Webster Road, and Independence Station Road near Justice Lane.
- *• New 24/8-inch primary transmission main, between preceding project along railroad and Madison Pike.
- *• New 24/8-inch transmission main, between preceding project along railroad/Independence Station Road/Independence Road, and Madison Pike.
- Utilization of the existing 20-inch primary transmission main along Highwater Road and Amsterdam Road via the elevation 1040 water service level from the Bromley Pump Station in Villa Hills.
- New water main extensions along Grand Avenue, Decoursey Pike and Locust Pike for serving industrial uses along the Licking River in Taylor Mill (areas previously used as Decoursey classification yards).

* Planned short-term improvements by Kenton County Water District No. 1 based on a twenty (20) - year plan by water district consultants for anticipated growth.

Pumping Stations

- New booster pump station (map code K30) along Highland Pike and Benton Avenue in Covington for an emergency source of supply to the Southwest Covington High Service Area.
- Booster pump station (map code K13) expansion to 6.0 mgd along Richardson Road in Erlanger to satisfy maximum daily consumption for the Independence - Taylor Mill, Dixie Highway and Boone County High Service Areas.

Storage Facilities

- New one million gallon water storage tank (map code K33) near a high point, located between Banklick Road and Richwood area/US 25, in Boone County, to serve a proposed new industrial park.
- Two new 500,000 gallon elevated storage tanks (map codes K34 and K35) along Taylor Mill road for adequate water supply and fire protection for the Taylor Mill - Independence Service Area.
- New 500,000 gallon elevated storage tank (map code K36) north of I-275, in the general location of the railroad and Taylor Mill Road, to serve high density development in Covington and Taylor Mill.

SANITARY SEWERAGE SYSTEMS

SEWER AGENCIES, LEGISLATION AND CONSOLIDATION

Significant changes regarding centralized sanitary sewerage systems in Northern Kentucky have taken place since the last Comprehensive Plan Update in 1991. Effective July 1, 1995, (Covington's system became effective in April 1995) the operational sewer systems in 11 of 12 cities in Campbell County and 16 of 17 cities in Kenton County, together with all assets and liabilities, as of January 1, 1994, merged to become the property of Sanitation District No. 1. Later, on December 28, 1995, sewers formerly under the jurisdiction of Boone County Water and Sewer Commission also became part of the District.

The merger, which had been in the works for about two years, was made a reality through Senate Bill 255, and enacted as part of Kentucky Revised Statutes (KRS) 220, as amended. The KRS 220 amendments enabled cities to join the District at their own discretion as a Municipal Subdistrict, providing operation and maintenance of their respective municipal systems. Following completion of the new Latonia Lakes system, it too will become a part of the District, and expectations are that more cities will eventually join the District. To date, the only municipal sanitary sewer systems from an ownership and maintenance standpoint, remaining outside the jurisdiction of Sanitation District No. 1, include, Independence in Kenton County, Alexandria in

Campbell County, and Florence and Walton in Boone County.

The merger was a result of U.S. Environmental Protection Agency (EPA) requirements, and many discussions with city and county officials, the Municipal Government League, Sanitation District No. 1, State EPA personnel, and legislators. These discussions were in response to public concern about deteriorated sanitary sewer systems and public health problems. Infiltration and Inflow (I/I) and Combined Sewer Overflows (CSO's), had been problems for many years, since approximately forty (40) percent of the sewers in Northern Kentucky are combined sewers. Problems such as Sanitary Sewer Overflows (SSO's) also exist in separate sanitary sewer areas.

In May 1993, partly as a result of new U.S. EPA stormwater regulations, the Kentucky EPA Division of Water required each city in Northern Kentucky to apply for a Kentucky Pollution Discharge Elimination System (KPDES) permit to operate a sewerage system. The main concern was the volume of wastewater and overflows (including wet weather flows) being transferred to a receiving system. The Kentucky EPA Division of Water permit application process required flow measurements and a reporting of each transfer point where wastewater would be conveyed to another jurisdiction. Various estimates regarding scope and magnitude of costs involved were made. Monitoring the approximate 1,700 transfer points the state has tallied would have cost about \$8.5 million. Consolidation will result in cost savings, through economies of scale, and better service and maintenance of regional sewer systems.

EXISTING SEWERAGE SYSTEMS IMPROVEMENTS, TESTING AND STUDY

Since the 1991 Plan Update, a number of major sanitary sewerage system improvements have been completed by the Sanitation District No. 1, municipalities, or other partnerships. Water quality testing, and a sewer study were also initiated. These projects are the following:

- Modifications at Dry Creek Wastewater Treatment Plant (map code K39) increasing average daily flow (ADF) plant capacity from 38 MGD (million gallons per day) to 46 MGD and a maximum peak daily flow (MPDF) to 70-75 MGD.
- New Dechlorination Facility (map code K49) constructed at the intersection of Amsterdam and River Roads (SR 8) in 1994. Chlorine added at the plant disinfects released water. Unfortunately, the chemical is harmful to plant and animal life. Thus, a dechlorination process has been completed. Such facility adheres to new EPA regulations.
- Modifications at the Dry Creek Plant regarding Odor Control. Methods to treat recycled water were redesigned. The neutralizing agent Bioscent added as odorous fumes passes through the scrubber systems reduces offensive odors.
- Modifications at the Lakeview Pump Station (map code K11) increasing to a larger reliable pump capacity of 15 MGD in response to Infiltration and Inflow (I/I) problems from existing systems within Erlanger, Independence and Taylor

Mill into Banklick Creek.

- 48 and 60-inch Ohio River Interceptor sewer repairs including pipe sections, joint and manholes in Covington, Ludlow and Bromley.
- 15/18-inch Brushy Fork Outfall sewer extending from Independence Station Road to Nicholson to eliminate wastewater treatment plants and provide for growth within the Banklick Creek watershed in Independence and unincorporated Kenton County.
- Two major pumping stations along Fowler Creek Road (map code K50) and McKim Drive (map code K51), respectively, to transport wastewater from the Independence - Cherokee areas to the Banklick Creek Drainage Area.
- Interceptor and/or outfall sewers from the previously noted pumping stations along Fowler Creek Road and Thompson Branch Creek to provide needed sewer service and eliminate wastewater treatment plants under a state EPA "Agreed Order" in Independence.
- Pump station (map code K52) and outfall sewers for serving Plantation Heights Subdivision and Mills Park to convey generated wastewater to Thompson Branch/Fowler Creek Interceptor and on to the Banklick Creek Drainage Area.
- Municipal sewage collection system including seven pump stations (map code K53) serving the city of Latonia Lakes for conveyance to District wastewater treatment facilities.
- Municipal Subdistrict Sanitary Sewer Inspection Program. Inspection on sewer mains in sixteen (16) cities in Kenton County has been completed.
- Plant effluent testing in compliance with EPA's Water Quality Standards was conducted. One key test is fecal coliform. EPA allows a monthly average of up to 200 parts per 100 milliliters. Such testing has not exceeded 10 parts per 100 ml. in over two years. Thus, when the plant releases over 30 MGD of water each day into the Ohio River, treated water is 92 percent pollution free or actually cleaner than the existing river water. The District's testing lab has also received the Silver Award from a national association. During 1994, the Dry Creek Plant remained under the EPA limits in all thirteen categories of tests each day with only two exceptions.
- An interstate partnership was formed between the Sanitation District No.1 and the Metropolitan Sewer District in Cincinnati, Ohio. With an EPA grant and matching funds, a study to focus on the efforts of Combined Sewer Overflows (CSOs) in the Ohio River was initiated - an issue that has been a major problem at the local and national level for many years. A short term plan regarding a CSO strategy must be in place by January 1, 1997.

Four packaged wastewater treatment plant facilities abandoned from service since the

last Plan Update include: a) Taylor Ridge Apartments - 0.03 MGD; b) Cherokee Acres - 0.04 MGD; c) Oliver Heights - 0.01 MGD; and d) Freedom Park - 0.03 MGD. One pump station in Covington (Lakewood Hills #2) has been abandoned from service since the last Plan Update.

Information pertaining to Sewage Treatment Plants and Sewage Pumping Stations has been updated to reflect changes in the previous five years (see Tables 7-3 and 7-4). Rehabilitation estimates for sewer mains in seventeen cities have been documented (See Table 7-5). Major facility improvements to the Existing Sewerage Systems have been updated and illustrated on Map 7C. Information pertaining to other facility improvements by municipalities and private developers reflecting changes in the previous five years have been updated on more detailed GIS computer mapping. This data is being kept current in the offices of the NKAPC and Sanitation District No.1.

RECOMMENDED SEWERAGE SYSTEM PLAN

Recommended improvements within this Plan Update are based on a twenty year planning period. Planned improvements by Sanitation District No. 1 have been incorporated within this Plan Update. General recommendations within previous Sewerage System Plans were listed under sections entitled: Urban Development and Sewerage System Expansion, Water Quality and Sewage Treatment, Pumping Stations, Sanitary Sewer Systems, Combined Sewers and River Water Intrusion; and, Recommended Improvements within seven specific "drainage areas" in Kenton County. All recommendations made in that update, (except for those improvements listed as complete), are still valid for implementation within a twenty year planning period, except as modified, within the following sections.

Operation and Maintenance of Existing Sewerage Systems

It is recommended that the operation and maintenance of all sanitary sewer systems, including rehabilitation of existing systems, in Kenton County, be provided on a county-wide basis by Sanitation District No. 1. With the exception of Latonia Lakes, which will become part of Sanitation District No. 1, upon completion of a new system, only the city of Independence currently remains outside the jurisdiction of the District. Further, deterioration of the county's sanitary sewer infrastructure systems, if left in disrepair, will exacerbate water quality problems. Water quality data and economies of scale provide sufficient evidence that ownership and maintenance of regional sewer systems by a single entity provides better regional services.

Municipal Subdistrict Sanitary Sewer Inspection Programs on existing sewer mains in seventeen cities in Kenton County have been completed. Computer recording devices equipped to perform flow monitoring measuring depth and velocity of wastewater were placed in manholes at over 170 selected sites. In addition, rainfall data was measured at 20 selected sites. Flow monitoring and rainfall data taken during dry weather, wet weather, and after storm events was evaluated by specially designed software by district consultants.

TABLE 7-3
SEWAGE TREATMENT PLANTS
KENTON COUNTY
1996

MAP CODE	ENTITY NAME	KPDES PERMIT NUMBER	RATED CAPACITY	RECEIVING STREAM
K44	Simon Kenton High School ⁽²⁾	KY0040657	0.03 MGD	Brushy Fork
K46	Regency Manor ⁽²⁾	KY0080802	0.01 MGD	Fowler Creek
K54	Colony House Apts. ⁽²⁾	KY0034207	0.002 MGD	Fowler Creek
K55	Kenton Co. Farm Bureau ⁽²⁾	KY0077721	0.001 MGD	Cruises Creek
K56	Hickory Grove Baptist ⁽²⁾	KY0095842	0.003 MGD	Bowman Creek
K57	Community Pentecostal ⁽²⁾	KY0086762	N.A.	Bowman Creek
K48	Belair Subdivision ⁽²⁾	KY0075833	0.01 MGD	Fowler Creek
K47	Twenhofel Jr. High ⁽²⁾	KY0040690	0.016 MGD	Fowler Creek
K58	White Tower Elementary ⁽²⁾	KY0040631	0.008 MGD	Bowman Creek
K59	All Creatures Vet Clinic ⁽²⁾	KY0075876	0.001 MGD	Bowman Creek
K60	Kenton Co. YMCA ⁽²⁾	KY0082783	0.003 MGD	Steep Creek
K61	Kenton Co. Coop. Center ⁽²⁾	KY0097942	0.002 MGD	Decoursey Creek
K43	Ryland Lakes County Club ⁽²⁾	KY0042439	0.03 MGD	Licking River
K62	Progress Rail ⁽²⁾	KY0111137	0.01 MGD	Licking River
K63	Visalia Elementary School ⁽²⁾	KY0040681	0.01 MGD	Licking River
K64	Piner Elementary ⁽²⁾	KY0040665	0.01 MGD	Little Cruises Creek
K65	Ryland Heights ⁽²⁾	KY0040673	0.01 MGD	Decoursey Creek
K39	Sanitation District No. 1 ⁽¹⁾	KY0021466	46 MGD	Ohio River

NOTE: All plants shown are at least 1,000 gallons per day or larger. MGD - million gallons per day. KPDES - Kentucky Pollution Discharge Elimination System.

(1) Owned and operated by the Sanitation District No. 1.

(2) Privately owned and operated.

SOURCE: Kentucky Department of Natural Resources and Environmental Protection, Department of Water.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 7-4
SEWAGE PUMPING STATIONS
KENTON COUNTY
1996

MAP CODE	NAME	YEAR INSTALLED	NO. OF UNITS	TYPE OF UNITS	H.P. EACH UNIT	CAPACITY OF EACH UNIT GPM	TOTAL DYNAMIC HEAD	RELIABLE STATION CAPACITY MGD
K1	Second Street	1955	2	Pumps	75	4,000	55	5.76
K2	Bromley	1978	4	Pumps	2 at 900 2 at 300	2 at 20,000 2 at 6,500	134	47.50
K3	Eighth Street	1955	4	Pumps	40	3,400	33	14.70
K4	Ria Vista	1983	2	Pumps	5	N.A.	60	N.A.
K5	Highwater	1982	2	Pumps	9	250	65	0.36
K7	Patton Street	1955	4	Pumps	25	2,500	23	10.80
K9	Leathers Road	N.A.	2	Pumps	7.5	100	70	0.14
K10	Banklick	1955	2	Pumps	30	1,160	69	1.67
K11	Lakeview	1996	4	Pumps	400	3,472	440	15.0
K12	Keavy Drive	1982	2	Pumps	9	150	60	0.22
K13	Meadow Lane	1984	2	Pumps	9	233	70	0.34
K14	Turkeyfoot	N.A.	2	Pumps	3	125	40	0.18
K16	Lakewood Hills#1	1978	2	Pumps	9.4	200	77	0.29
K18	Lakewood Hills#3	N.A.	N.A.	Pumps	N.A.	300	N.A.	0.43
K19	Catalpa Drive ⁽¹⁾	1972	2	Pumps	10	245	28	0.35
K21	Pearl Drive ⁽¹⁾	1976	2	Pumps	9.4	280	46	0.40
K24	Independence ⁽¹⁾	1985	2	Pumps	7.5	100	60	0.14
K25	Ridgeway	1990	2	Pumps	10	105	77	0.15
K26	Ridgeway Farms	1986	2	Pumps	10	80	80	0.12
K53	Latonia Lakes	1996	N.A.	Pumps	25	300	100	N.A.
K53	Latonia Lakes	1996	N.A.	Pumps	25	250	107	N.A.
K53	Latonia Lakes	1996	N.A.	Pumps	2	30	20	N.A.
K53	Latonia Lakes	1996	N.A.	Pumps	2	30	20	N.A.
K53	Latonia Lakes	1996	N.A.	Pumps	3	40	68	N.A.
K53	Latonia Lakes	1996	N.A.	Pumps	-	-	-	N.A.
K53	Latonia Lakes	1996	N.A.	Pumps	-	-	-	N.A.

NOTES: Reliable Station Capacity is the capacity with the largest pump out of operation.

All pumps stations noted are maintained by the Sanitation District No. 1., except for the following:

(1) Owned and maintained by the City of Independence;

ABBREVIATIONS: H.P. - Horsepower, GPM - Gallons Per Minute, MGD - Million Gallons Per Day, N.A. - Not Available.

SOURCE: Sanitation District No.1 and cities.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996

TABLE 7-5
SANITATION DISTRICT NO. 1
KENTON COUNTY
1996

MUNICIPAL SUBDISTRICT SANITARY SEWER INSPECTION PROGRAM
COMPLETED INSPECTIONS

NAME	FEET OF SEWER LINE	MANHOLES	ESTIMATED REHABILITATION COST ⁽¹⁾	ESTIMATED COST PER FOOT	ESTIMATED INSPECTION COST ⁽²⁾	DATE INSPECTION COMPLETED
Bromley	7,997	84	\$65,275	\$8.16	\$4,285	08/18/93
Covington	446,670	2,946	\$5,932,900	\$13.28	\$156,125	02/28/92
Crescent Park	4,204	20	\$32,886	\$7.82	\$3,400	08/27/93
Crescent Springs	70,830	382	\$268,811	\$3.80	\$22,500	06/29/95
Crestview Hills	65,111	340	\$145,448	\$2.23	\$18,959	05/23/94
Edgewood	210,191	1,053	\$522,523	\$2.49	\$62,068	03/24/92
Elsmere	116,023	652	\$452,958	\$3.90	\$46,314	05/23/94
Erlanger	256,874	1,193	\$2,797,490	\$10.89	\$100,703	01/31/92
Ft. Mitchell	133,031	746	\$558,176	\$4.20	\$51,517	04/11/94
Ft. Wright	127,694	619	\$1,120,269	\$8.77	\$36,931	05/04/93
Kenton Vale	313	3	\$975	\$3.12	\$1,225	05/22/95
Independence	129,079	664	\$203,220	\$1.57	\$47,281	03/24/92
Lakeside Park	60,981	368	\$383,384	\$6.29	\$16,904	05/05/93
Ludlow	44,051	228	\$763,863	\$17.34	\$19,453	08/12/93
Park Hills	61,342	371	\$441,040	\$7.19	\$22,701	09/30/92
Taylor Mill	108,791	499	\$334,525	\$3.07	\$29,909	12/06/93
Villa Hills	179,513	867	\$275,598	\$1.54	\$56,350	06/29/95
TOTALS	2,022,695	11,035	\$14,299,341	\$6.22 ⁽³⁾	\$696,625	06/29/95

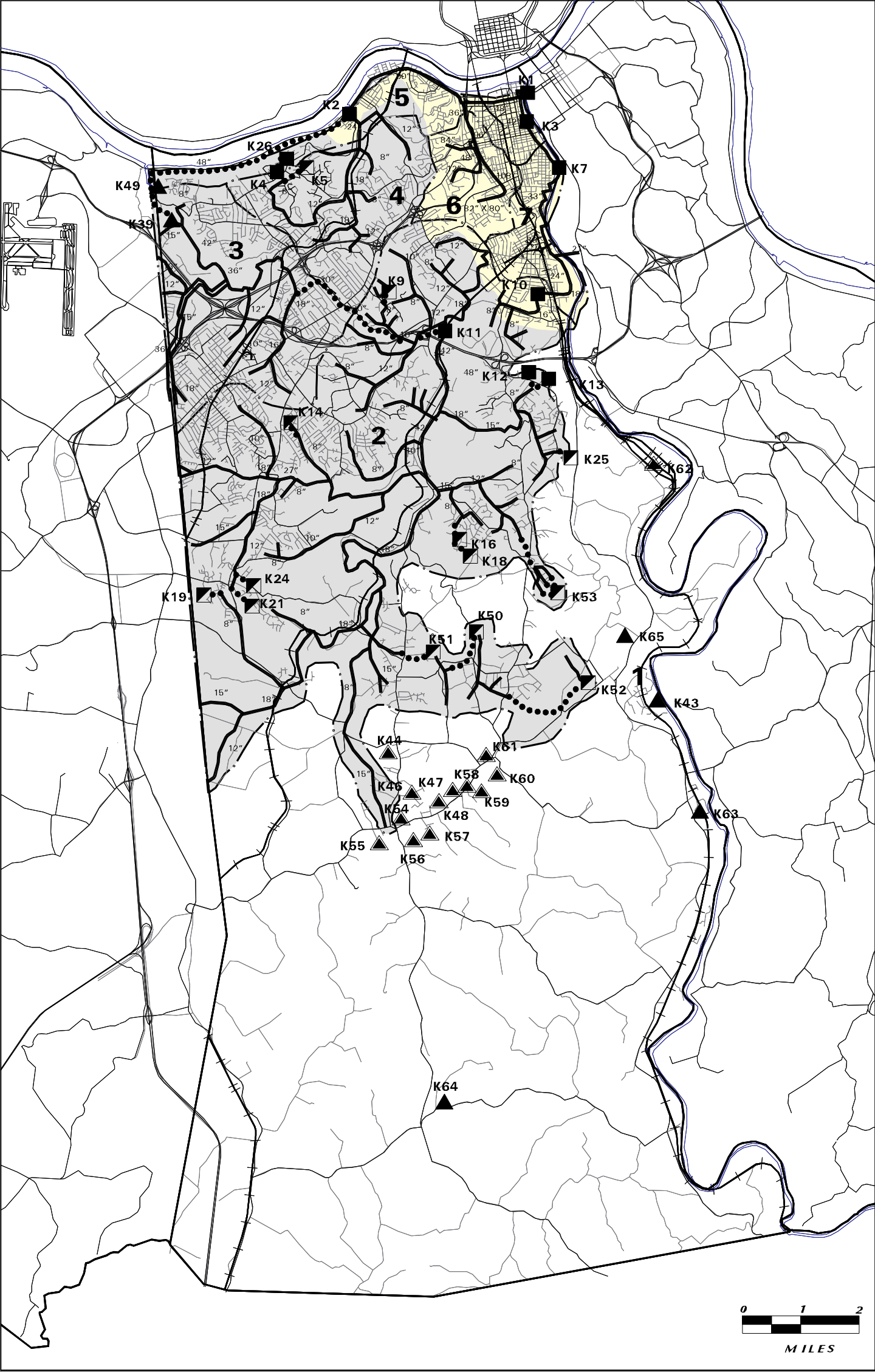
(1) 50% payable by city / 50% payable by sanitation district NO.1.

(2) 25% payable by city / 75% payable by sanitation district NO.1.

(3) Average cost per system foot.

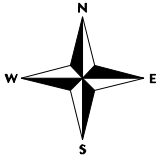
SOURCE: Sanitation District No. 1.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.



DRAINAGE AREAS

1. Upper Licking River
2. Banklick Creek
3. Dry Creek
4. Pleasant Run Creek
5. Ohio River West
6. Willow Run
7. Ohio-Licking Basin



NORTHERN KENTUCKY AREA PLANNING COMMISSION

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MAP
7C

1996 COMPREHENSIVE PLAN
KENTON COUNTY, KENTUCKY

EXISTING SEWAGE SYSTEM

- | | |
|--|--------------------------------|
| ▲ Sewage Treatment Plant | — Sanitary Sewer Interceptor |
| ■ Sewage Pumping Station | Force Main |
| ▲ Abandon Sewage Treatment Plant | — · Drainage Area Boundary |
| ■ Abandon Pumping Station | Existing Sewer Service Area |
| K18 Text Reference Numbers
(See tables 7-3 and 7-4) | Area Served By Combined Sewers |

This analysis will enable the District to pinpoint sites which need attention and repair to solve Infiltration and Inflow (I/I) problems.

A listing of the type and number of repairs to be performed by the District at the start of consolidation in Northern Kentucky include the following: (1) Replace manhole lids - 278; (2) Replace frames - 184; (3) Reset frame to manhole - 671; (4) Remove obstruction/roots - 53; (5) Clean manholes - 5695; (6) Clean main lines - 454; and (7) Heavy cleaning via mechanical machines to eliminate blockages - 187. The district has also purchased new teleinspection equipment and special cameras to aid in prevention and repair. This technology eliminated the need to unnecessarily dig up streets and lawns to locate the source of sewer problems. According to Sanitation District No. 1, pilot program efforts will focus on rehabilitation for systems in Erlanger and Elsmere where the magnitude of I/I is high. ([See Table 7-5](#))

Mapping is a critical component of sewer maintenance. Accurate maps help field crews identify the source of the problem quickly and prepare crews for the type of service repairs which are necessary. New computer hardware and software utilize GIS (Geographic Information Systems) technology. The GIS provides blueprint - like layouts of utilities, roads and property lines in a block-by-block format. Layers may be viewed all at once or peeled back to reveal one utility or service at a time. A work station located at District offices allows personnel to archive up-to-date maps of sewer lines onto the GIS. The GIS centralizes information about sewer lines allowing the District to stay abreast of changes that may affect sewer maintenance. Much of these efforts have been coordinated by the NKAPC, with several other partners within the program.

Urban Development and Sewerage System Expansion

The Sewerage System Plan is based on the relationship between urban growth and sewerage system needs. Areas recommended for development have been evaluated on the ability to be provided with economical and adequate centralized sewerage systems before being encouraged to develop at urban densities. At the same time, improvement and expansion of centralized sewerage systems, particularly the staging of construction, should be designed to encourage planned and orderly growth and to discourage undesirable development patterns.

This is a major premise on which previous plan updates have been prepared in order to discourage undesirable development patterns. Studies by Ohio-Kentucky-Indiana Regional Council of Governments (OKI) have indicated costs for providing sewerage systems within the Non-Urban Service Area would be approximately \$219 per month per household based on 1996 costs as updated from the 1991 study ([see Chapter V for further discussion regarding Urban/Non-Urban Service Areas](#)).

The predominant reliance upon centralized sewerage systems in Kenton County indicates that sewerage system and extension policies can be very effective in controlling the location and type of new development. Discussions throughout this plan have indicated that control over the location and type of new development is

essential if public services are to be provided in a logical and economical fashion. One of these public services is, of course, sanitary sewerage facilities, and they represent a public service which can benefit most from planned orderly growth. At the same time, expansion of the sewer system can be effective in combination with other development controls in providing direction to future urban development.

Seldom have water and sanitary systems been constructed simultaneously. Therefore, if decisions are made to continue the extension of water systems in rural areas but not to extend centralized sanitary sewerage facilities, and unacceptable environmental hazards exist, then the KC & MP & ZC's adoption and enforcement of stringent subdivision requirements, for application in these non-urban service areas may be a reasonable and sound next step as a means to further control new development. (See Recommended Sewerage System Plan entitled Alternative Wastewater Systems for Rural Developments within the Non-Urban Service Areas)

Water Quality and Sewage Treatment

The quality of water within our streams and rivers in Northern Kentucky is directly related to point and non-point discharges dumping into these waterways. Combined sewer systems which serve almost half of the sewered population residing in Northern Kentucky, are responsible for a significant amount of the discharge of untreated sewage, diluted with rainwater, to the Banklick Creek, Licking, and Ohio Rivers. Compounding the problem is the fact that many of the combined sewers are capable of carrying surface runoff from only a minor rainfall. More severe rainfalls result in interior flooding and ponding of runoff, mixed with sewage, which constitutes a health hazard and a nuisance problem. In addition, most of the combined sewers are more than 75 years old and have not been adequately maintained. Flood proofing or raising manholes, inlets, or bypasses, for the Ohio River Interceptor, to 15 feet above normal pool elevation (or 470 feet) has reduced river water intrusion to significantly less than the average of 90 days per year occurring in the late 1970's. This improvement has undoubtedly improved water quality in the Ohio River Basin area, but it is not enough.

An economical solution to the problem of combined sewers is non-existent. Existing combined sewers are often inadequately sized to be used as both storm and sanitary sewers, and cannot be used as separate sanitary sewers because pipe slopes are too flat to maintain self-cleaning velocities. Separation of the combined sewer systems in Northern Kentucky would require construction of two new and separate sewer systems. Previous estimates indicated that complete separation of all combined sewers in Kenton County would be cost prohibitive. It is evident that alternatives for separating combined sewer systems would not constitute a reasonable or short-term solution. Considerable research has been conducted in an effort to find more economical means of achieving an improvement in water quality that would be the equivalent of separating combined sewer systems. Previous research has studied various methods of storing and treatment of combined wastewaters.

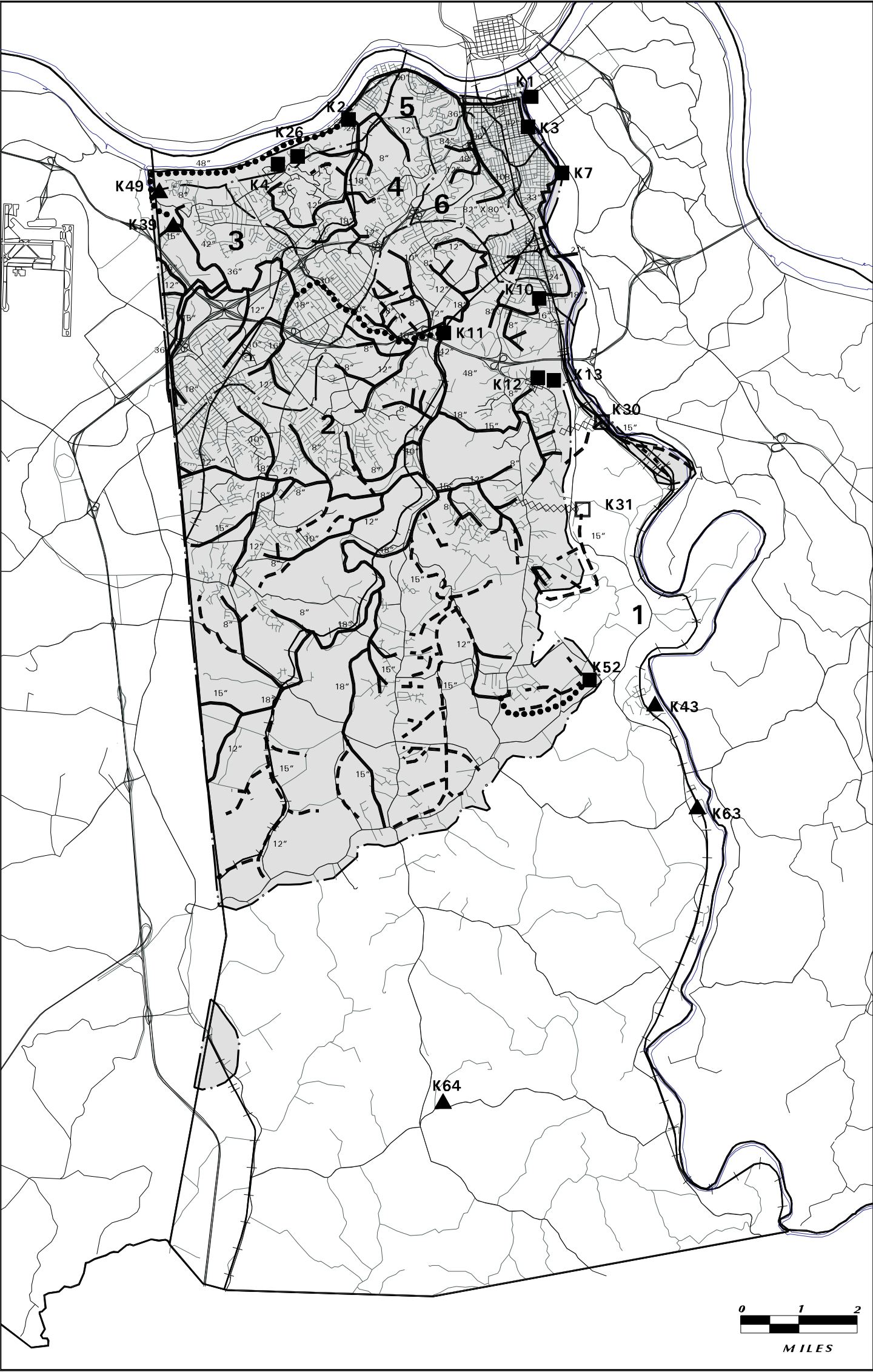
Since state and federal regulations necessitate elimination of all bypassing of untreated sewage for separate sanitary sewer systems, any alternatives considered

should provide for full treatment of the total flow in the sanitary collection and treatment system.

1. It is recommended that Short and Long Term Plans for Combined Sewer Overflows (CSOs) and By-Passes, including river water intrusion, be prepared and implemented in accord with EPA regulations. A Short Term plan must be in place by January 1, 1997 where the EPA has indicated that no major system intrusion can occur. According to District officials, a plan has been completed by consultants and submitted to EPA. Combined sanitary and storm sewers are more than 75 years old. Severe rainfall results in interior flooding, mixed with sewage and by-passing constitutes a health hazard and water quality problem.
2. It is recommended that further modifications to the Dry Creek Wastewater Treatment Plant [i.e., present capacity is 46 MGD (average dry weather flow) and 70-75 MGD (peak wet weather flow)] be made for improved wastewater treatment of all such flows associated with Infiltration and Inflow (I/I) problems and river water intrusion, in accordance with state and federal regulations. Addressing the problem for handling Suspended Solids is a priority according to District personnel. If and when regulations change, improvements to upgrade capacities or other processes must follow.
3. It is recommended that alternatives for disposal of sewage sludge be studied and implemented, when practicable. Earlier practices impacted water quantity and capacity of landfill sites. Current resource recovery practices regarding sewage sludge indicate other beneficial uses are available following various processing techniques.
4. It is recommended that improved regulations mandating tie-ins to new centralized sewer systems be initiated, thereby eliminating individual on-site sewage systems via Sanitation District No.1 Rules and Regulations, Board of Health regulations and/or city county ordinances. Mandates are needed to require owners of on-site systems to connect to new centralized systems to prevent further sickness and disease, resulting from improperly working on-site sewage disposal systems.

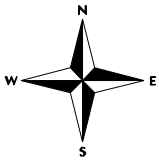
Recommended Improvements

In addition to providing centralized sewer systems in areas presently served by alternative systems (i.e., such as small wastewater treatment plants and on - site sewage disposal systems), the Sewerage System Plan recommends expansion of existing systems to provide adequate centralized systems, according to a prioritized schedule, to all areas of proposed urban development within the Urban Service Area. [Map 7D](#), Sewerage System Plan, has been updated to reflect recommended modifications to the previous Sewer System Plan Update. Specific recommendations areas follows:



DRAINAGE AREAS

1. Upper Licking River
2. Banklick Creek
3. Dry Creek
4. Pleasant Run Creek
5. Ohio River West
6. Willow Run
7. Ohio-Licking Basin



NORTHERN KENTUCKY AREA PLANNING COMMISSION

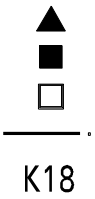
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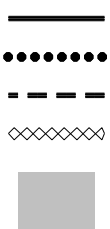
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1996 COMPREHENSIVE PLAN
KENTON COUNTY, KENTUCKY

SEWAGE SYSTEM PLAN



- Sewage Treatment Plant
- Sewage Pumping Station
- Proposed Sewage Pumping Station
- Drainage Area Boundary
- Text Reference Numbers
(See tables 7.3 and 7.4)



- Sanitary Sewer Interceptor
- Force Main
- Proposed Interceptor
- Proposed Force Main
- Recommended Sewer Service Area



Sewage Treatment Plants

- Install improved processes to reduce suspended solids in accordance with water quality laws at the Dry Creek Treatment Plant (map code K39).

Interceptor and Outfall Sewers (New Construction)

- 8-inch outfall sewer, from Fort Wright Outfall along Highland Pike, to eliminate pumping station near Leathers Road in Fort Mitchell;
- New interceptor sewers, from the Banklick Interceptor near Madison Pike along Fowler Creek Road and Thompson Branch Creek, to provide needed sewer service and eliminate sewage pumping stations along Fowler Creek Road and Mc Kim Drive in Independence;
- New outfall sewers from the Brushy Fork Outfall, to provide needed sewer service and eliminate the Simon Kenton High School wastewater treatment plant in Independence;
- New interceptor and/or outfall sewers from existing outfall sewers, along Oliver Road and Fowler Creek Road south, to provide needed sewer service and eliminate wastewater treatment plants serving Twenhofel Junior High School, Belaire Subdivision, Regency Manor, and other smaller plants listed within [Table 7-3](#) in Independence;
- New collector sewers within subdrainage areas, extending north from an existing municipal outfall sewer along Orphanage Road, to eliminate on - site systems and the need for house pumps within Fort Mitchell Meadows Subdivision in Fort Mitchell;
- New collector sewers along Banklick Road from Wolf Pen Creek Outfall to Walton Nicholson Road, including easterly and westerly directions in unincorporated Kenton County;
- New collector sewers within subdrainage areas, extending in a westerly direction from both the Sanitation District's Bullock Pen and Doe Run Outfall, to provide sewer service to undeveloped areas generally bound by Richardson Road, Nelson Road, and Narrows Road, within the Banklick Creek Drainage Area in Erlanger;
- New collector sewers within subdrainage areas, extending in a westerly direction along Highwater Road and Amsterdam Road, to eliminate the Highwater lift station along Riverwatch Drive in Villa Hills;
- New collector sewers extending along the Licking River south of I-275, Decoursey Pike, and Locust Pike for serving a proposed industrial park in Taylor Mill;

- New collector sewer along Bristow Road and Mt. Zion Road to eliminate several pumping stations in Beechgrove in Independence; and
- New collector sewers along Decoursey Pike, Marshall Road and Klette Road to provide growth and eliminate seven (7) pump stations within the city of Latonia Lakes.

Interceptor and Outfall Sewers (replacements)

- 10-inch outfall sewer from Park Hills/Dixie Highway Outfall near I-75 and U.S. 25/42 along Montague Road, to replace 72-inch combined sewer constructed in the 1920's in Covington.

Pumping Stations (new construction)

- All Sanitation District Stations -- backup generators and power supply to provide greater reliability and eliminate potential pollution sources; and
- Pumping stations (map codes K30 and K31) along Locust Pike and Decoursey Pike near Fairview, to convey generated wastewater to the Horsebranch and Scott High School Outfalls, respectively, within the Banklick Creek Drainage area.

ALTERNATIVE WASTEWATER SYSTEMS FOR RURAL DEVELOPMENTS WITHIN THE NON-URBAN SERVICE AREA

Centralized sanitary sewers are available within urban areas with regional treatment provided at the Dry Creek Wastewater Treatment Plant. Numerous smaller packaged plants (See Table 7-3) via surface discharges currently serve other wastewater generators until regional centralized sewers become available. However, in most of the Non-Urban Service Area, individual on-site sewage disposal systems are used. Unfortunately, these often do not work properly, due to the existence of poor, clayey soils, as documented on soil maps. This is why all development in the Urban Service Area is required or encouraged to be connected to centralized sewer systems.

In the meantime, it is recommended that alternative systems for rural developments within the Non-Urban Service Area be considered by proper authorities. Examples and further description of such systems further documented by the U. S. EPA include the following:

1. On-Site Tank and Soil Absorption Trench - Most common system where solids settle in a tank and liquid is transported via perforated pipe in trenches to crushed rock and soil for treatment.
2. Aerobic System and Soil Absorption Field - Air and wastewater are mixed, bacteria growth liquefies solids for same above trench treatment.

3. On-Site Tank and Soil Absorption Bed - Similar to System 1 but fields are smaller where space is limited.
4. On-Site Tank with Alternating Absorption Fields - One field rests via valve box while the other is used for renewable treatment in problem clayey soils.
5. A) On-Site Dosing System - Pump or siphon forces liquid to perforated pipes in controlled, even doses for improved renewable treatment: B) On-Site Closed Loop - Variation of A, used where ground is nearly level.
6. On - Site Tank with Sloping Field - Serial Distribution - Similar to System 5. but drop boxes regulate liquids so highest trench fills first, second, third etc. used on slopes.
7. On - Site Tank with Seepage Pit - Liquid flows into pit with open - jointed brick or stone walls surrounded by rock and soil for treatment.
8. On - Site Tank and Leaching Chambers - Open - bottom concrete cavern replaces perforated pipe trenches and rocks, where liquids are spread uniformly for soil treatment and venting.
9. Mound Systems - Liquid pumped from tank to perforated pipe in sand mound for treatment via above vegetation and lower rock and soils used in tight soils or high water table.
10. Evapotranspiration Bed - Similar to System 9, but sand bed has waterproof liner with treatment provided via evaporation used where absorption fields are not possible.
11. On - Site Tank, Sand Filter Disinfection and Discharge - Ground level or buried sand pit filters liquid to disinfection tank for discharge to stream where absorption fields are not possible.
12. Low - Pressure Subsurface Pipe Distribution - Pump forces liquid through small diameter perforated pipes in controlled, even doses, used in rocky soils or high water table.
13. Holding Tank - Sewage stored and pumped out to truck where soil absorption field is not possible.
14. Cluster Systems - Several home sites share a common soil absorption field or other alternative system.
15. Waterless or Low Water Toilet System - Waterless composting, incinerating and/or recycling oil flush; and low water recycling chemical and recycling water treats liquids via renewable or other energy sources.
16. A) Blackwater System - Toilet wastes (blackwater) are handled similar to

System 9. B) Greywater System - Household wastewater from kitchen, bath, laundry (greywater) needs separate treatment.

17. Small Diameter Gravity Collection System - Smaller pipe alternative to 8 - inch pipe is sloped for treatment cost savings.
18. Vacuum Collection System - Central vacuum pump transports sewage to tank and treatment plant. Needs standby electric power and alarm system.
19. Land Applications - Sewage liquid is applied to land to nourish vegetation and purification via such methods including irrigation, overload flow and rapid infiltration.
20. Pressure Sewers - GP - Grinder pumps sewage from one or more home sites through small diameter pipe to central or alternative treatment plant.
21. Pressure Sewers - STEP - Septic Tank Effluent Pump forces cleaner liquid from one or more homesites through plastic pipe for treatment.

The majority of the aforementioned systems are dependent upon soils for treatment. Greater detail regarding such systems are available at the offices of the NKAPC and the Northern Kentucky District Board of Health.

Site evaluation factors for conventional on-site systems presently are regulated by the Northern Kentucky District Board of Health and include the following: (1) Topography (Slope %); (2) Landscape Position; (3) Soil texture and Group; (4) Soil Structure; (5) Internal Soil Drainage; (6) Soil Depth; (7) Restrictive Horizons; and, (8) Available Space. Field Inspections from the noted soil factors result in an Overall Site Classification for suitability. Permits for on-site systems are issued based upon soil suitability classifications. However, regardless of the type of on-site system used, all such systems should include mandatory monitoring and inspection under government authority, an issue which is not regulated at the present time.

Efforts should be continued for considering alternatives to conventional systems to ensure adequate wastewater treatment as an integral part of the Comprehensive Plan.

STORMWATER SYSTEMS

STORMWATER REGULATIONS - PURPOSE AND BACKGROUND

With the passage of amendments to the Federal Clean Water Act in 1987, the U.S. EPA was required to implement a program to regulate the discharge of stormwater from industrial and construction sites under the National Pollutant Discharge Elimination System (NPDES). In Kentucky, EPA's regulations imposed deadlines for filing applications for the Kentucky Pollutant Discharge Elimination System (KPDES). Since publication of these regulations in 1990, many public officials and other professionals have strived to understand and comply with the EPA requirements. As stated at the beginning of this chapter, municipalities which had a population over

100,000, and separate storm and sanitary sewer systems, had to satisfy the requirements by May 17, 1993. Municipalities with a population of less than 100,000, with separate storm and sanitary sewer systems are not currently covered by the act, but identification of a jurisdictional unit in Northern Kentucky to cover these areas, so that they will be subject to the same requirements, is under consideration.

In Kenton County, examples of those impacted by the regulations include the following: (1) city street and county road department garages and refueling areas; (2) municipalities operating sewer systems forced to identify transfer points/flow measurements regarding Infiltration and Inflow (I/I) including Separate Sewer Overflows (SSOs); (3) manufacturing, processing, or raw material storage areas at industrial plants; and (4) private developers, professionals, and contractors regarding Notice of Intent (NOI) applications for land development construction sites greater than five acres.

Information available from various sources indicated that further legal interpretation of the law compelled EPA to also enforce discharge permits for light industry as well as construction sites under five acres in size. Thus, the intent of the Stormwater Program may reach further, and include all industry and any construction site emitting Non-Point Source Pollution. Public agencies and the private sector should seek the guidance of qualified legal counsel regarding future requirements.

EXISTING STORMWATER SYSTEMS

Numerous types of storm drainage systems exist within Kenton County. These stormwater conveyance systems range in scope from the largest (i.e., Ohio and Licking Rivers, various bridge and culvert structures, enclosed storm sewers and open channels, etc.) to the smallest (i.e., street catch basins, road side ditches, etc.) and yard inlets where an unfortunate tragedy resulted in the loss of life during an intense rainstorm in Fort Wright, August 1995. Ownership and maintenance of such systems include the US Army Corps of Engineers, Kentucky Department of Transportation, 21 legislative bodies or public works departments, numerous homeowner associations and property owners having non-public systems on private lands.

Since the 1991 Plan Update, a number of stormwater issues impacting various jurisdictions including public and private sectors within the entire county, have been addressed. Statutes and/or regulations have also been amended. Such issues and regulations have been summarized as follows:

- Amendments to KRS 224 and Administrative Regulations: Kentucky Division of Water (DOW) regulations pertaining to Stormwater/Erosion Control Stream Construction (401/404) and Flood Plains. These regulations include the following programs: (1) General permit for stormwater point sources for sites greater than five acres; (2) EPA baseline construction general permit requirements for preconstruction checklist; (3) Best Management Practices (BMP's) for construction activities; (4) DOW approval required for dams greater than 25 feet or impoundments greater than 50 acre-feet; (5) DOW approval

required for construction or filling in a stream having drainage areas greater than one square mile (640 acres); (6) DOW approval required for construction activity adjacent to or in streams that involve greater than 200 linear feet (cumulatively) or wetlands exceeding one acre in size; and, (7) US Army Corps of Engineers approval required for construction in streams where base flows are 5 cfs (cubic feet per second) or greater - 1992.

- Keeping Soil on Construction Sites: Best Management Practices (BMPs) - A Video Training Program sponsored by the Department for National Resources and Home Builders Associations - 1994.
- Senate Bill/Kentucky Revised Statutes 220 relates to Sanitation Districts whereby effective July 1, 1995, the operational sewer and drainage system of each city (except for Independence, and Alexandria which chose to opt out September 1, 1994) became a part of the Sanitation District No. 1 renamed earlier this year. KRS 220.030(6) under Purposes for which a sanitation district may be established reads "To develop and implement plans for the collection and disposal of storm drainage to the extent that collection and disposal of storm drainage is required by applicable federal and state regulations." KRS 220.135 (2) (a) reads "Effective July 1, 1995, the operational sewer drainage systems of each city located within the jurisdiction boundaries of the district ... including but not limited to sewers, easements, manholes, pumping stations, force mains and real property shall become property, personal and real of the Sanitation District." Further discussion with Sanitation District officials indicated that acceptance of all storm drainage systems is further regulated by KRS 220.030(6) and, as such, additional federal and state regulations are necessary to develop and implement plans for such systems prior to acceptance. Therefore, maintenance of such systems still must be assured by the applicable legislative bodies (i.e., cities/county) and/or private property owners.
- US Army Corps of Engineers - Louisville District Interim Letter Report - Local Flood Protection Reconnaissance Study - Metropolitan Region of Cincinnati, Ohio - Northern Kentucky Area, February 1995. That study indicated that Banklick Creek in Kenton County has 130 structures located in the existing 100-Year floodplain. Based upon findings and conclusions in the report and the U.S. President's FY 1996 proposed budget, sufficient funds were available to complete the recommended remaining reconnaissance level studies - 1995.
- Four (4) Non-Point pollution workshops sponsored by Natural Resources (formerly SCS) Conservation Service were held within Boone, Campbell and Kenton Counties - 1995. Topics included: (1) Planning for Pollution Control; (2) Urban Land and Water Management; (3) Involving the Community in Pollution Prevention; and, (4) How Non-Point Source Prevention Can Benefit You. These workshops were well attended. Much of the information is used and emphasized in day-to-day construction inspection activities.
- Kenton County Fiscal Court Resolution No. 94-37 petitioned the NKAPC and

KC&MP&ZC to amend county-wide Subdivision Regulations to improve design criteria for Stormwater Runoff Control facilities for all developments including single - family residential uses. Amendments adopted in August of 1995 are as follows:

- (1) Limit and specify runoff methods to be used to estimate quantities of discharge and sizing pipe(s) and conduit(s);
 - (2) Allow design engineers to utilize Geographic Information Systems (GIS) mapping and soils data, where applicable;
 - (3) Eliminate credits previously built into the numbers/calculations by providing values for hard surface and a specific range of runoff coefficients for lot sizes/widths to be used in calculations;
 - (4) Require and/or upgrades Stormwater Runoff Control Facilities for all developments including single-family residential; and
 - (5) Require runoff control at discharge from storage basins to be regulated using the 2, 10 and 50 year storm frequencies.
- Intense flooding damages by storms in June 1996, within the Banklick Creek watershed. This intense flooding brought about the need to revisit previous plans for additional stormwater runoff control impoundments to supplement the Doe Run Reservoir, constructed in 1979 by the Soil Conservation Service - 1996.
 - Stormwater Inlet Standards for Kenton County, Kentucky - A Final Report to determine recommendations for amending current regulations regarding stormwater inlets. This report studied and made recommendations to require alternatives including enclosures and/or metal grid guards over public and private drainage systems to improve safety especially for small children during intense storm events - 1996.

RECOMMENDED STORMWATER PLAN

Recommended measures within this plan update are based on a twenty (20)-year planning period. Specific recommendations are as follows:

1. It is recommended that efforts be pursued to improve coordination with the enforcement branch of EPA/Kentucky Division of Water regarding amendments to KRS 224 and Administrative Regulations pertaining to Stormwater and Erosion Control Measures, and such regulations be rigidly enforced. Non-point source pollution from construction activities has been an on-going problem for many years. Improved regulations adopted in 1992 provide additional criteria to further ensure that adequate preventative measures are in place and disturbed areas reseeded and mulched, in order to protect the

county's environmentally sensitive areas from such non-point source pollution.

2. It is recommended that Best Management Practices (BMPs) for all construction activities including Non-Point source pollution, be implemented in concert with state and local regulatory agencies. Documented practices and preventative measures to control on-site erosion, if implemented properly, have been successful in preserving top soil and improving water quality.
3. It is recommended that plans for the collection and disposal of storm drainage be prepared to the extent that collection and disposal of storm drainage is required by applicable federal and state regulations. Point and Non-Point source pollution should be controlled by a regional entity or district in accord with federal and state regulations for the public's health. Sanitation District No. 1 agreed, in late 1996, to begin a study on the feasibility of starting such a stormwater management plan. Such efforts should include that all natural means be encouraged to contain stormwater.
4. It is recommended that maintenance responsibilities for Stormwater Runoff Control Facilities, now required for nearly all urban developments including single-family residential uses, be further defined and resolved among private and public entities. Maintenance of shared privately owned infrastructure (i.e., storm drainage systems including detention and retention basins) are often beyond the practical abilities of single "fee simple" ownerships. Maintenance responsibilities by Homeowners Associations, historically, has not worked for these systems. Such facilities should be owned and maintained by a regional entity or district where public works personnel are better trained and more qualified.
5. It is recommended that location and extent of all storm sewer systems be mapped with the PlaNet GIS computer system. Mapping of storm sewer systems is the first critical step for inventory and preparing and updating more detailed Stormwater Management Plans.
6. It is recommended that efforts be pursued to study feasibility of a Stormwater Utility for funding revenue for lessening stormwater problems including rehabilitation of substandard systems and capital improvements on a system - wide basis, where practicable. A Stormwater Utility generating revenue is critical for maintenance, upgrading and expanding storm drainage systems. As a result of the Federal Clean Water Act as amended in 1987, future stormwater management programs will be dependent upon the EPA for establishing a regional unit to require municipalities or another unit of 100,000 population or more to develop such programs. The trend of responsibility is that a community cannot allow post-development runoff to be greater than pre-development runoff. Public demand for improved water quality and environmental protection is the key. Many rate structures use calculated user fees by utilizing factors that include impervious areas (hard surfaces such as parking lots, driveways, rooftops, etc.), property classifications and land use. Subdivision Regulations

have already been put in place for Kenton County to establish a Regional Facility Fee based upon the equivalent cost of requirements for on-site storage facilities to be substituted/escrowed toward future regional facilities by a regional entity or district. Such funding mechanism could also be used to maintain such existing facilities.

7. It is recommended that GIS capabilities, including updated soils information, be utilized for stormwater hydraulic modeling watershed stream analyses. Watershed modeling using GIS and other software programs can identify stormwater problem areas for remediation and other new capital projects.
8. It is recommended that minimum standards and criteria regarding the design of stormwater inlets, increase safety measures for children, be studied and amendments made, where required. Certain stormwater inlets deemed to be dangerous or attractive nuisances should be prohibited and/or modified via new standards and regulations to improve safety. Recommendations from a recently completed Final Report Study still need to be acted upon.
9. It is recommended that an additional regional stormwater runoff control reservoir be reexamined for the Independence area as a result of flood damage in early 1996. Additional flood controls are necessary to supplement the Doe Run Reservoir. Portions of Thompson Branch and Fowler Creeks, north of Oliver Road, and absent of newly constructed sanitary sewage systems, could be used as a Flood Retardation Structure to prevent further public and private property damages along the flatter flood plains of the Banklick Creek Watershed.

Within the Independence area, the previous plan update, recommended to include a proposed multiple purpose reservoir along Fowler Creek Road/Thompson Branch Creek. Only one of four originally planned reservoirs, the Bullock Pen Reservoir, has been constructed within the Banklick Creek Drainage Area. These watershed projects were originally planned in the 1960's. Prior to the 1986 plan update, the Wolf Pen Reservoir, in the western portion of the county, was phased out by the U.S. Department of Agriculture, Soil Conservation Service, and the Kenton County Fiscal Court, due to lack of funding and other financial reasons. The Brushy Fork Interceptor Sewer, located where the other Brushy Fork Reservoir was planned, has been completed to provide centralized sanitary sewer service to unsewered areas including the central business area of the city of Independence. As a result of considerable flooding and damage from intense rainfall in June 1996, and further re-evaluation of the Banklick Creek Watershed Study prepared by the Natural Resources Conservation Service (formally SCS) in the 1970's, it is recommended that a smaller version of the Fowler Creek Reservoir be studied for possible inclusion within this plan update.

SOLID WASTE SYSTEMS

Environmental concerns ranked in the top five at the initial public "town meeting" held

at Thomas More College in August, 1995. Other related issues mentioned at that meeting include: Reduction of pollution; Water quality; Support of alternative energy sources; and, Use of regional solid waste processing and resource recovery facilities. Solid waste management, as it is known today, began to change significantly with enactment of the Federal Resource Conservation and Recovery Act (RCRA) of 1981. New emphasis was placed on organizational structure, resource conservation, recycling, upgrading landfills, and resolving the open dumping problem. Numerous amendments have been made to the Kentucky Revised Statutes (KRS) 109 and 224, as a result of Senate Bill 2 (1990). These statutes placed primary responsibility for solid waste management on Kentucky's 120 counties and fiscal courts to prepare plans, identify existing systems, make projections, and ensure adequate disposal of solid waste materials within a twenty-year planning period. These same statutes delegate administrative authority to cities to contract with private haulers for collection and disposal of non-hazardous solid wastes.

A detailed Solid Waste Management Plan for Campbell and Kenton Counties was prepared by the NKAPC in 1972. In fact, some of the original work was used by consultants and state personnel when the first Kentucky Solid Waste Plan was prepared in the early 1980's. In 1985, the NKAPC prepared a detailed Solid Waste Management Plan for Kenton County, Kentucky, while the Northern Kentucky Area Development District (NKADD) prepared plans for the remaining seven (7) counties within the NKADD. The main points of Senate Bill 2 (1990) impacting solid wastes in counties are as follows:

- Encouraged regional approval of solid waste planning and management.
- Established a goal of reducing solid wastes landfilled by a minimum of 25 percent per person between a base year 1993 and July 1, 1997.
- Required the EPA Division of Waste Management to update plans and report to the General Assembly and Governor.
- Authorized Area Development Districts to prepare plans for local governments.
- Created a conflict resolution process within the Department for Local government associated with siting multi-jurisdictional facilities.
- Created the Kentucky Recycling Brokerage to create reliable markets for recyclables.
- Required each county to enable citizens to use a universal collection system.

Near the beginning of the last Plan Update in 1991, interlocal agreements were signed by the Judge/Executives of Boone, Campbell, and Kenton Counties creating the Northern Kentucky Solid Waste Management Area (NKSWMMA), a multi-county solid waste management area. The NKSWMMA is administered by a Governing Board, a Technical Advisory Committee (TAC), and various sub-committees operating with a staff including a Solid Waste Coordinator located in offices of the NKADD.

EXISTING SOLID WASTE SYSTEMS

The existing Solid Waste Management Plan for Kenton County, the largest populated county within the NKSWMMA, includes the following elements: (1) Existing solid waste systems; (2) Problems and deficiencies; (3) Goals and objectives; (4) Selected components for solid waste management systems; and, (5) Implementation. Solid wastes within twenty-two (22) jurisdictions of Kenton County are handled via private contracts or open competition. In some cities such contracts include residential wastes only. In other municipalities, commercial, institutional, industrial units and other generators are included for contract collection and disposal. A few cities, and the unincorporated area, remain in open competition where residents and other establishments must contract individually for solids waste services.

Since the 1991 Plan Update, a number of solid waste issues impacting residents in Kenton County have occurred. Such issues have been summarized as follows:

- Separate solid waste ordinances were administered by the fiscal court and each legislative body.
- In Park Hills, funds were budgeted for a program called "Clean Sweep" where contractors hauled "fall season leaves" to a landscaping company where composting was conducted.
- State regulations regarding landfills were upgraded to include specifications for synthetic liners. Landfill cells must include filter fabric over other materials including granular and clay layers for proper drainage and protection of the water table.
- White goods and recycling drop-off centers have been made available via public works departments and at other various locations within the county.
- Started by the city of Villa Hills, a total of 13 cities now participate in regular recycling programs within their communities.
- Previous Annual Reports for the Northern Kentucky Solid Waste Management Area (NKSWMMA) have been prepared by the NKADD and kept current in the offices of the NKAPC.
- The 1995 priorities of the NKSWMMA studied and addressed the following: (1) used tires; (2) paper recycling; (3) white goods; (4) yard waste; (5) junk autos/open dumps; and, (6) regional education programs.
- The 1996 Priorities of the NKSWMMA include the following: Level 1: (1) Residential, commercial and industrial waste reduction; (2) used tires; and (3) yard wastes. Level 2: (1) paper recycling; (2) construction and demolition wastes; and, (3) a uniform solid waste ordinance applicable to an entire county including cities.

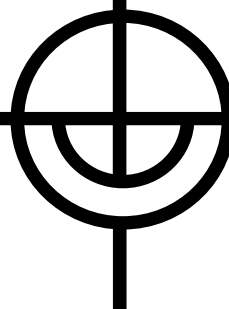
RECOMMENDED SOLID WASTE PLAN

Recommended measures within this Plan Update are based on a twenty (20) year planning period. Specific recommendations are as follows:

1. It is recommended that the mission, goals, objectives, and tasks within the multi-county plan for the Northern Kentucky Solid Waste Management Area (NKSWMMA) be implemented. Input from Kenton County, having the largest population and number of cities, has significant impact on the Multi-County Solid Waste Management Plan administered by a solid waste coordinator in the offices of the NKADD. Solid waste generation within 21 separate jurisdictions in Kenton County demands improved measures to coordinate all solid waste functions to ensure adequate protection of the environment, and avoid duplication of services as an integral part of the NKSWMMA.
2. It is recommended that a uniform comprehensive model ordinance regulating solid waste management including, storage, collection, transportation, disposal open dumping, blight, litter, public nuisances, etc. be drafted and adopted by the fiscal court and all local government bodies. Developing a uniform model ordinance applicable to the entire county would resolve conflicts with existing regulations and develop a much better framework for solid waste management at a regional level.
3. It is recommended that solid waste services be provided under government authority to all areas of the county. Mandatory universal contract collection is not yet provided to all residents under governmental authority, which is an environmental concern.
4. It is recommended that regional resource recovery facilities, including transfer stations and recycling technology, be provided to serve Kenton County. Regional facilities including transfer stations and other such technology for material separation, recycling, processing and compaction, will reduce long haul distances to distant landfill sites and create revenue via tipping fees for capital projects for funding the Northern Kentucky Solid Waste Management Area (NKSWMMA) for Kenton County.
5. It is recommended that emphasis on voluntary and mandatory recycling programs which involve materials separation and reduction be continued. Improved resource conservation and recycling methods reduce landfill space and further provide for materials recovery to enhance the supply of goods and services.

CHAPTER VIII

TRANSPORTATION



CHAPTER VIII TRANSPORTATION

GENERAL

The Transportation Plan, included within the 1972 Official Area-Wide Comprehensive Plan and the 1981, 1986 and 1991 Plan Updates, was part of a larger nine-county regional transportation study proposed and coordinated through the Ohio-Kentucky-Indiana Regional Council of Governments (OKI). Since the 1986 Update, OKI serves eight counties, with Ohio County in Indiana no longer participating in the regional program. The Transportation Plan includes recommendations concerning highways, mass transit, water, rail, and air facilities. The NKAPC will continue to coordinate this update and all future efforts with the Regional Transportation Plan. The initial portion of this section of the plan will focus on the OKI Regional Transportation Plan followed by plan recommendations for the Northern Kentucky/Kenton County area.

OKI REGIONAL TRANSPORTATION PLAN

Since the adoption of the last Comprehensive Plan Update in 1991, the OKI, in accordance with the new Federal Interstate Surface Transportation Efficiency Act (ISTEA) of 1991, adopted in December 1993, the regional long-range transportation plan for the tri-state region of southwest Ohio, Northern Kentucky, and southeastern Indiana.

Under the Clean Air Act Amendments (CAAA) of 1990, air quality attainment became a central objective of transportation policy, planning and program development. Within the OKI region, air quality plans must specify transportation control measures (TCM) to help meet ozone standards by late 1996. Therefore, transportation projects must be consistent with air quality goals and the long-range transportation plan must ultimately conform to the air quality plan. The CAAA of 1990 is complemented by the ISTEA, passed in 1991. This act provides metropolitan areas the funding and flexibility to help improve air quality through improving the transportation system. The long-range transportation plan, in addition to enhancing mobility, must also insure that the growth of future travel does not reverse the air quality improvements that must be attained by this act. Because of the new requirements placed on Transportation Planning for the OKI region (the CAAA and the ISTEA legislation), the OKI regional transportation plan must take into consideration the following issues:

- Travel demand management is to be applied to balance the need for new transportation facilities with demand (i.e., alternatives to driving alone are to be promoted in order to reduce the need for expanding transportation facilities);
- Transportation demand is to be accommodated by a multi-modal system that includes, in addition to highways, transit, ride share programs, and bicycling and pedestrian facilities;

- Transportation projects that involve capacity expansion will not be permitted to advance in planning unless they are in conformity with provisions in the air quality plan;
- Congestion is to be mitigated; and
- Plan recommendations must be accompanied by a financial plan to clarify funding availability and implementation responsibilities.

The emphasis of these new federal acts on air quality in the OKI region, creates new requirements for transportation planning, because federal funding for roadway construction or expansion will only be available for those projects that accompany improvements in air quality. In addition, the OKI transportation plan lays the groundwork for increasing travel by transit and other drive-alone alternatives for using roadways more efficiently and for balancing travel supply and demand. Specifically, the OKI Transportation Plan covers the following areas:

- Recommended transportation measures for improving air quality;
- Recommended transit improvements, including expansion of existing transit service; development of rail transit system and additional improvements to transit service;
- Recommended highway improvements, including discussion of committed projects;
- Development of a smart highway system for the region (ARTIMIS);
- Traffic operation improvements including new computerized traffic signal systems for the area and improved access control management for highway development;.
- Recommendations concerning the need for bicycle and pedestrian travel improvements;
- Rideshare service for the region; and
- Recommended major travel corridor studies, followed by creation of a land use committee, transportation financing committee, and a commission on transit institutional restructuring.

The OKI regional plan further identifies major long-range highway capacity deficiencies in Northern Kentucky/Kenton County, as follows:

- I-75, from the Ohio River south to Kyles Lane;
- I-75, from the I-275 area south into the Florence area at US 42;
- KY 17, from just north of Hands Pike south to Nicholson area at KY 16;
- KY 16 (Taylor Mill Road), from near I-275 south to the Hands Pike area;
- Sections of Dixie Highway, between I-75 and I-275, principally the area from I-75 to the area near Highland Avenue and from Buttermilk Pike to Turkeyfoot Road, and other sections between I-275 and Commonwealth Avenue; and
- Commonwealth Avenue, from the I-75 area to Dixie Highway and sections of Dixie Highway in Boone County, from US 42 south to Mount Zion Road, including Industrial Road from Turkeyfoot Road west into Boone County.

- In Campbell County, major deficiencies are identified along I-471 from the Ohio River south to I-275.

Most of the projects identified as deficiencies in the regional plan are identified in the Six-Year KTC Transportation Plan, or are proposed in this Plan Update, for improvement.

In the section regarding bicycle and pedestrian travel, the OKI transportation plan emphasizes the need to give priority funding to those projects that promote bicycle and pedestrian travel to reduce vehicular trips. The study further indicates other recommended bicycle and pedestrian improvements for the region, including Kenton County (see later section of the OKI Transportation Plan Update regarding the need to develop a recommended bicycle plan for Kenton County).

The 1990 Clean Air Act Amendments place reliance on the adoption and implementation of 'transportation control measures' (TCM's). A number of TCM's are identified in the Act, including expanded public transit, high occupancy vehicle lanes, employer-based transportation management plans, trip reduction ordinances, programs to provide high occupancy shared-ride services, limiting sections of metropolitan areas to pedestrian or non-motorized vehicle use, providing secure bicycle storage and bicycle lanes, and the construction of paths exclusively for the use of pedestrians and non-motorized vehicles.

The TCM's are consistent with the Transportation Systems Management (TSM) approach included in the previous Transportation Plan Update. This approach places emphasis on making the most effective use of existing transportation corridors and systems and is still encouraged and promotes:

- Widening and realignment of existing roadways rather than new construction;
- Operational improvements to existing facilities; and
- Encouraging expansion of transit, car pooling, van pooling, and shifting peak hour work trips to non-peak hour periods.

The use of Operational Improvements continues to be a key recommendation of this Plan Update and would include the following types of improvements:

- Widening intersection approaches;
- Provision of reversible lanes;
- Provision of left-turn storage lanes; right-turn storage lanes; deceleration or acceleration lanes;
- Prohibition of turning movements;
- Prohibition of on-street parking; and
- Synchronized signalization.

Based on the new ISTEA, the forum for transportation decision making on regional bases is the Metropolitan Planning Organization (MPO). The OKI has been the designated MPO for the metropolitan region since 1965. The NKAPC is a contributing and funding member of OKI.

The Transportation Plan Element of the 1996 Plan Update, as contained herein, is consistent with the 1993 OKI regional transportation plan, as updated. OKI is currently in the process of updating its 1993 Regional Transportation Plan for the region, which is anticipated to be completed in late 1997.

CURRENT PROJECTS UNDERWAY FOR OKI REGION

I-71 Corridor Transportation Study - OKI has identified the need for six major transportation corridors for further study. Two of these corridors, the I-71/75 corridor, from downtown Cincinnati to the Cincinnati/ Northern Kentucky International Airport, and the I-71 corridor, from downtown Cincinnati to southern Warren County, near the Kings Mill area, have now been combined into one corridor called the I-71 Corridor Transportation Study. The OKI long-range transportation plan indicated that the I-71 corridor accounts for approximately one-fourth of all types of trips within the region (auto, bus, trucks, vans, etc.). It was also projected that total travel in the corridor is anticipated to increase by 15% by the year 2010, from 272,000 to 313,000 trips daily. The OKI plan further notes that trips to the airport will increase by 80%, to downtown Cincinnati by almost 20%, and to the University Hospital district by 8.5%. In addition, the OKI long-range transportation plan notes that all segments of I-71/I-75 in Kentucky and I-71 in Ohio, between the I-275 interchanges, will be operating at or near gridlock. The purpose of the I-71 corridor transportation study is to establish a locally preferred alternative strategy to address the transportation needs in the corridor over the next 25 years.

The I-71 Corridor Study extends from Florence and the Cincinnati/Northern Kentucky International Airport through Boone County into Kenton County through the cities of Erlanger, Crescent Springs, Fort Mitchell, Fort Wright and Covington, then through the city of Cincinnati business district, University of Cincinnati, University Hospital complex, the cities of Norwood, Blue Ash, and other Hamilton County cities into southern Warren County to the Kings Mill area.

Options identified in the OKI studies to date to expand the I-71 corridor travel capacity include:

- Highway widening
- High occupancy vehicle (HOV) lanes
- Expanded bus service
- Transportation Systems Management (TSM) improvements
- Busways
- Light Rail Transit (LRT)

The magnitude of these future traffic problems will require that the corridor's travel capacity be expanded with the various options identified and within the limitations of air quality standards, density of existing and future development, geographic conditions, available right-of-way, etc. The I-71 corridor transportation study is being conducted in four phases, to be completed by April 1997. During the first two phases of the study, through August 1996, a large number of options were identified and analyzed for meeting the transportation needs of the I-71 corridor over the next 25 years. During the third phase of the study, from August 1996 to January 1997, the following five options have been selected for further consideration:

- A "no-build" option;
- A transportation system management (TSM) option;
- Three "build" options of high occupancy vehicle (HOV) lanes;
- A busway transit; and
- Light rail.

In the first few months of 1997, the preferred alternative strategy will be reviewed by the public and OKI for final acceptance. The following is a brief summary of each of the alternatives which will be evaluated for further study.

- High occupancy vehicle (HOV) alternative - The HOV lanes are roadways with specific lanes that are reserved during all or part of the day for use by vehicles for two or more persons;.
- Busway alternatives - Exclusive lane or roadway for exclusive use of buses, using several possible combinations of freeway medians, abandoned rail corridors, and city streets; and.
- Light rail transit (LRT) - The LRT alternative is an urban railway which is powered by electricity. This alternative uses predominately exclusive right-of-way and operates in various combinations of street right-of-way, freeway right-of-way, and railroad rights of way. This system is characterized as being a modern electric urban railway system, taking power from overhead wire and operating either in single cars or in trains of several cars.

At this stage of planning, the OKI plan recommends that both the light rail transit alternative and the busway alternative would travel along a corridor of I-71, from Florence, and would include a link to the Cincinnati/Northern Kentucky International Airport. They would then continue north along I-71/75 into the Covington area, either via 12th Street or the 19th Street area, and from that point would follow generally along the railroad and/or Madison Avenue into the downtown area of Covington and cross into downtown Cincinnati, via a new bridge crossing. Stations are anticipated to be provided along the corridor at the following general locations: Florence, Airport, Erlanger, Fort Mitchell, Fort Wright, and several in Covington central downtown area. More detailed information regarding each of these alternatives and alignments are available for review in the offices of the Northern Kentucky Area Planning Commission.

The TSM alternative is described as a very low-cost improvement to the existing bus system which is designed to improve transportation conditions in the I-71 corridor. It would include physical improvements such as intersection improvements, park and ride lots, and intelligent transportation systems (ITS). ITS projects, which would include the ARTIMIS program (described later in this section), are scheduled to be in operation by the early part of 1997.)

Fort Washington Way Sub-Corridor Study - As part of the I-71 corridor study, a special study has been undertaken to look at Fort Washington Way, extending generally from I-75 on the west to I-71/471 on the east. The need for the Fort Washington Way corridor study was initiated due to the fact that this facility was designed during the early 1960's and, as a result, does not meet some of the more current criteria for this route to operate in a safe and efficient manner. An OKI subcommittee was formed to evaluate a number of alternatives that would better provide for the safer movement of traffic and improved capacity of this roadway. When this roadway was originally designed, it was anticipated to carry approximately 100,000 vehicles per day by 1975. In June 1995, this route carried almost 140,000 vehicles per day, and served several transportation functions. Some of the problems raised concerning the geometric design guidelines of this roadway include: 1) lack of lane continuity; 2) inadequate weaving distances; 3) inadequate access spacing; 4) access design of rough left entrances and exits do not meet standards and, 5) inadequate driver decision distance. A number of alternatives are being evaluated as part of this sub-corridor study that would better link the Cincinnati central business district with the riverfront and its connection with the riverfront on the Kentucky side of the OKI region. These alternatives will also look at better ways to provide for increased use of some of the under utilized bridges across the Ohio River, including the Clay Wade Bailey Bridge and the Central Bridge between Newport and Cincinnati. A number of redesigns and modifications to Fort Washington Way have been identified and will be further evaluated for the preferred alternative selection. This element of the study is anticipated to be completed in the early part of 1997, and included as part of the I-71 corridor study.

Advanced Regional Traffic Interactive Management & Information System (ARTIMIS) - This traffic management system will continuously monitor traffic conditions along 88 miles of highway in the Cincinnati - Northern Kentucky region. The system is expected to be operational by early, 1997. The goals of ARTIMIS are to improve air quality, reduce travel time, and make driving safer and easier. Key capabilities of the system include route guidance through pre-trip travel information supplied through the SmarTraveler telephone system and en-route driver information provided through changeable message signs and radio instruction reports. The system will also provide incident and congestion management as well as assisting with traffic control. Such congestion is typically due to excess travel during peak commute periods or reduced highway capacity resulting from traffic incidents. A traffic incident may be defined in terms of a traffic accident, stall or other vehicular failure, spilled load, construction zone, or special event.

Fiber optic cables have been or are being installed along Interstate 71/75 from Florence to Interstate 275 north of Cincinnati, as well as Interstate 275, from Interstate 71 to Ohio State Route 4. The system also includes traffic control detectors on the freeway to identify congestion and potential incidents, cameras for video coverage to assist in evaluating identified congestion, changeable message signs, and highway advisory radio to provide motorist information.

The information collected is sent back to the operations control center, located in downtown Cincinnati, near I-75/71, which monitors and manages traffic flow. There, the information is analyzed by computer to determine if a potential incident exists. If an incident exists, a traffic manager uses the video cameras to verify the type and severity of the incident. Then a response plan is initiated based upon the type of problem encountered. The traffic manager can then take the necessary actions such as contacting appropriate emergency personnel and informing motorists via the changeable message signs and highway advisory radio. Another response would be to contact one of the freeway service vans, which patrol the highways. The van drivers are able to assist with minor repairs and request additional assistance through communications with the operations control center.

Future enhancement of ARTIMIS include expansion of the system from Interstate 275 north to King's Island, tie-ins to major arterials, ramp metering at key Interstate 71 interchanges, tie-ins to public transit, and information kiosks at the workplaces, shopping centers, and other major trip generators.

NORTHERN KENTUCKY / KENTON COUNTY BACKGROUND

TRANSPORTATION STUDIES COMPLETED

In 1981, the NKAPC began a major program to assist in implementing recommendations in the transportation plan element. This effort has included preparation of a number of detailed studies covering major transportation corridors within Kenton County, city - wide and neighborhood traffic studies in Covington, and other transportation/traffic related type studies.

These studies began with a task force consisting of NKAPC, representatives of the community in which the project was being prepared, including residents, business persons with an interest in the area, representatives of the Transit Authority of Northern Kentucky, Kentucky Transportation Cabinet, and members of the general assembly.

These groups assisted the NKAPC staff in identification of site specific problems, review of alternative solutions, and formulation of goals, objectives, and recommendations. These advisory groups were then called upon to play an important role in helping to implement the recommendations of the plan, including working with other groups, such as city government and the Kentucky Transportation Cabinet. This process has played an extremely important role toward implementation of the recommendations contained within these studies. Without such coordination, many of the recommended projects could not have been initiated in a timely fashion.

Between the 1981 and 1991 Comprehensive Plan Updates, nineteen (19) traffic studies were completed and identified in the 1986 and 1991 Comprehensive Plan Updates. Many of the recommendations within these studies have been implemented, and generally the recommendations for traffic improvements remain valid, with the exception of those areas where major changes have occurred, requiring a re-evaluation of these studies.

Since 1991, six (6) additional traffic studies have been completed. These studies which are included as a part of this Plan Update are available at the offices of the NKAPC and are listed as follows:

- Trip Reduction Management Study - June, 1992
Recommended model trip reduction ordinance and potential transportation control measures including improved public transit, high occupancy vehicle lanes, bicycle lanes, parking restrictions, and traffic flow improvements.
- City of Ft. Mitchell Traffic Analysis - September, 1992
Study of existing conditions and possible alternative traffic restrictions within the Beechwood Road area. Concluded that traffic movements were occurring at the appropriate locations and no additional traffic restrictions should be imposed.
- Taylor Mill Road Corridor Study - June, 1993
Recommended realignment and widening of Taylor Mill Road from I-275 to Hands Pike, including exclusive left turn lanes. Improvements were also recommended for several intersections including Taylor Mill and Mason Roads, Old Taylor Mill and Taylor Mill Roads, and Hands Pike and Taylor Mill Road intersections.
- Thomas More Parkway Traffic Analysis - May, 1994
An inventory of existing conditions, evaluation of future development and traffic generation, and an analysis of intersection capacity and level of service were performed. It was concluded that the existing roadway cannot handle the amount of potential traffic volumes generated by uses located along Thomas More Parkway. There appears to be sufficient right-of-way width to construct up to five lanes of roadway. Recommendations included providing four lanes along Thomas More Parkway, providing additional right and left turn lanes at specific intersections, and providing traffic signals at primary intersections. An addendum to this study analyzed the capacity and level of service based upon a three lane concept.
- State Route 536 Corridor Study - June, 1995
Recommended short term improvements including access management controls, intersection improvements, realignment and reconstruction, and traffic signalization/signage. The long term recommendations include widening and realigning sections of the roadway with curbs, gutters and sidewalks, intersection improvements, and construction of a new roadway with a bicycle lane between Mann Road and KY 177.

- Richardson Road Corridor Study - currently in progress
Phase I reviews the existing conditions, identifies specific traffic problems, and proposes a variety of alternative solutions including regulatory measures, traffic control devices, and physical improvements. This study covers the area from Dixie Highway (U.S. 25) to KY 17.

TRAFFIC FLOW CHANGES SINCE THE PREVIOUS PLAN UPDATES

[Table 8 - 1](#) includes average daily traffic volumes (ADT) for the period 1990-91 and at most locations, where available, for 1996. Major traffic flow changes have occurred along the following routes since the last Plan Update:

- KY 536 (Bristow Road, Mt. Zion Road, Harris Road, and Decoursey Pike) - increased from 878 - 3,250 ADT (1990-91) to 1,166 - 5,394 ADT (1994-96).
- Twelfth Street from I-75 to Licking River - increased from 6,187 - 11,647 ADT (1991) to 11,536 - 15,072 ADT (1996).
- KY 16 (Taylor Mill Road) from I-275 to Hands Pike - increased from 7,477 - 16,993 ADT (1991) to 10,084 - 24,119 ADT (1996).
- Old Taylor Mill Road from I-275 to KY 16 /Wayman Branch Road - increased from 1,772 - 3,092 ADT (1992) to 2,332 - 5,062 ADT (1996).
- Madison Pike (KY 17) north of Kyles Lane - increased from 12,166 ADT (1991) to 22,905 ADT (1996).
- Madison Pike (KY 17) from I-275 to Hands Pike - increased from 14,675 - 23,214 ADT (1991) to 17,830 - 25,252 ADT (1996).
- Hands Pike from KY 17 to KY 16 - increased from 3,230 - 4,570 ADT (1991) to 3,087 - 7,967 ADT (1996).
- Anderson/Bromley Crescent Springs Road from Buttermilk Pike to KY 8 - increased from 2,267 ADT (1991) to 5,386 ADT (1996).
- Dixie Highway (U.S. 25) from the Boone County line to south of Garvey Road - increased from 21,274 - 21,388 ADT (1991) to 25,039 - 25,353 ADT (1994).

**TABLE 8-1
RECOMMENDED HIGHWAY IMPROVEMENTS
KENTON COUNTY**

PAGE 1 OF 8

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
FREEWAYS:								
I-75	Kyles Lane	3,000 feet south of Dixie Highway	1.0	72	300	112,000 (93)	123,000	Add an additional southbound lane to serve increased traffic flow.
I-71 Extension (Boone County)	I-71/75 Interchange	U.S. 25	0.8	New	New	–	–	Extension of I-71 from its interchange with I-75 to U.S. 25.
ARTERIALS:								
U.S. 25 (Dixie Highway)	Boone County	12th Street	7.6	40	60	9,600-27,254	13,571-29,294 (94)	Traffic Operational Improvements - Intersection widening and realignment for left-turn storage at Arlington, Sleepy Hollow, Kyles Lane, Zayre Shopping Center, Beechwood Road, Burdsall, Turkeyfoot Road. Widen and reconstruct to provide for five lanes from I-75 north to St. James and Arlington to Mt. Allen. Synchronization of signals with area-wide signal system.
KY 1303 Turkeyfoot Road	I-275	Dixie Highway	0.4	18	50	16,030	10,151	Upgrade from two to three lanes. Widen intersection at Dixie Highway for required turning movements.
KY 1303 Turkeyfoot Road	I-275	Mt. Zion Road	4.5	18	50	5330-39,840	4043-36,286 (92)	Upgrade from two lanes to five lanes and realign - Widen and realign between Dudley Pike and Richardson Road to provide for five 12 foot lanes (continuous center left - turn lane). Richardson Road to Mt. Zion Road - Widen and improve roadway to contain three 12 foot lanes (continuous center left - turn lane). Improve turning movements at key intersections. For specific recommendations, see <u>Turkeyfoot Road Corridor Study</u> .

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8 - 1

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
KY 536 (Mt. Zion Road, Bristow Road, Harris Road, and Decoursey Pike)	I-75	Visalia Bridge	11.5	16-20	30-40	878 - 3,250	1,166 - 5,394	Rural Safety Improvement: Widen to accomodate 2 or 3 lanes, and provide adequate shoulder and realign where necessary. For specific recommendations, refer to <u>Kentucky State Route 536 Corridor Study</u> .
Alternative Access Corridor	I-75	Villa Hills Crescent Springs /Fort Mitchell/ Ludlow	-	New	New	-	-	Need to provide alternative access into Villa Hills/Crescent Springs/Fort Mitchell area to relieve Buttermilk Pike Corridor.
KY 8 (4th/5th Streets paired system)	4th Street: Crescent Ave. Philadelphia St. Main St. 5th Street: Crescent Ave. Philadelphia St. Greenup St. Garrard Street: 4th St.	Philadelphia St. Main St. Garrard St. Philadelphia St. Greenup St. Garrard St. 5th Street	0.2 0.1 0.6 0.2 0.6 0.1 0.1	27 34 36 27 36 27 14	50 66	4,024 - 21,859	9,130 - 17,638	Traffic Operational Improvement - Designate 4th Street two-way between Greenup Street and Garrard Street; retain 5th Street as one-way between Greenup and Garrard Streets. Prohibit parking and turning movements at key intersections. For specific recommendations, refer to <u>The Central Covington Traffic Study</u> .
New Bridge across Ohio River	Covington	Cincinnati	-	New	New	New	New	New bridge linking Covington with Cincinnati increasing capacity across the river.
KY 8	Bromley Lagoon Street Southern R.R.	Lagoon Street Southern R.R. Crescent Avenue	0.6 1.1 1.5	30 - 36 36 40	60 60 60	2,886 - 14,941	4,042 (92) - 13,546	Traffic Operational Improvement - Remove parking and provide for three lanes with center left - turn storage or reversible lane. For specific recommendations, refer to <u>State Route 8 Corridor Study</u> .
KY 8	Bromley	KY 212 (Boone County)	-	17 - 19	30	1,695 - 2,886	1,555	Major reconstruction of sections necessary to repair hillside slippage problems and stabilize hillside.
KY 8 Highway Avenue	Swain Court	Southern R.R. Bridge Area	-	New	New	New	New	Extension of KY 8 to provide access to proposed riverfront development in Covington and Ludlow. Refer to Special Development Area designation for this area.

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8-1

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
Scott and Greenup Streets (one-way paired system) Revised	Scott Street: 3rd Street Greenup Street: 3rd Street	11th Street	0.6	39	66	9,801 - 12,553	9,310- 10,564	Use of one - way paired system from north of 12th Street (KY 1120). Redesignation of Scott and Greenup Streets to local streets south of 12th Street, with Madison Avenue carrying north/south through movement (refer to Madison Avenue project description). Traffic Operational Improvement - Remove parking at key intersections for required turning movements; synchronization of signals with area - wide signal system.
		11th Street	0.6	39	66	6,588 - 11,338	9,487 (94)	
Main Street	Clay Wade Bailey Bridge	Pike Street	0.6	36 - 42	50 - 60	7,694 - 23,836	11,054 (92)- 13,817 (93)	Traffic Operational Improvement - Remove parking at key intersections; synchronization of signals with area - wide signal system. Specific recommendations included in <u>Covington City - Wide Traffic Study</u> - Central Study Area.
12th Street	I-75 Russell Street Madison Ave.	Russell Street Madison Ave. Licking River	0.4 0.2 0.5	36 30 27 - 28	50 50 50	6,187- 11,647	11,536- 15,072	Upgrade/Widening-Provide a two - way system with exclusive turn lanes at key intersections. Specific recommendations included in <u>1120 Corridor Study Project</u> by the state.
Madison Avenue	3rd Street	26th Street	2.0	40	66	12,068 - 20,394	10,721- 20,347	Madison Avenue planned to handle major north/south traffic flow. (Reclassification of Scott and Greenup Streets south of 12th Street to local street status and redesign to stop through movement of traffic.) Traffic Operational Improvements including necessary widening - Remove parking, provide off-street parking at selected locations and widen to accommodate left- turn storage lane at all key intersections; Synchronization of signals with area - wide signal system.
12th/26th St. Connector	12th Street	26th Street	1.2	New	New	N/A	N/A	A study of potential alternatives for a new north/south segment parallel to the C & O Railroad to relieve high volumes of traffic along Madison Avenue and Scott and Greenup Streets.
East - West Connector	KY 17	KY 16	1.1	New	New	-	-	New roadway generally north of Interstate 275, see text for additional details.

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8 - 1

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
KY 16/KY 177	26th and Madison Ave.	Southern Ave. (Ritte's Corner)	0.9	36 - 38	50 - 60	12,370 - 17,696	11,165- 15,635	Traffic Operational Improvements - Synchronization of signals with area - wide signal system. Specific recommendations included in <u>Latonia Area Traffic Study</u> .
Decoursey Pike (KY 177)	Southern Ave.	Banklick Creek	1.0	30 - 36	50 -60	1,450- 4,163	3,386- 4,244 (94)	Traffic Operational Improvements - For specific recommendations, refer to the <u>Latonia Area Traffic Study</u> .
New Bridge across Licking River	Locust Pike	KY 9 (Campbell County)	-	New	New	-	-	New bridge crossing Locust Pike to KY 9/KY 546 (AA Highway) to improve access to potential industrial development at L & N yards.
Taylor Mill Road (KY 16)	I-275	Hands Pike	3.9	22	50	7,477 - 16,993	10,084- 24,119	Widen and realign to three or four lanes; provide storage lanes at key intersections (e.g. Old Taylor Mill Road, Hands Pike, etc.). For specific recommendations, refer to <u>Taylor Mill Road Corridor Study</u> .
Wayman Branch Road	Hands Pike	KY 16	1.5	18	50	N/A	N/A	Widen and realign to provide for improved east/west access.
KY 16	Hands Pike	U.S. 25 (Boone County)	10.5	18	50	2,726- 9,726	5,442 (94)- 8,570	Rural Safety Improvement - Widen to 24 foot pavement width (widen to 3 lanes south to Hands Pike) and provide adequate shoulder; Widen intersections for left turn storage lanes at Hands Pike, Cox Road, Cherokee Shopping Center entrance, Harris Road and KY 17.
KY 17	Pelly Road	KY 16	5.4	18	50	8,849- 10,030	6,708- 9,940	Widen and realign. See text and <u>Madison Pike Corridor Study</u> .
KY 17	Relocated sector north of Hands Pike	Pelly Road	2.7	18	50	14,675	17,830	Widen to accommodate four lanes; Widen intersection of Hands Pike and Richardson Road for left turn storage. For specific recommendations, refer to the <u>Madison Pike Corridor Study</u> .
KY 236 (Stevenson Road)	Turkeyfoot Road	Dixie Highway	1.5	20	50	7,987- 11,647	7,332- 9,518 (94)	Traffic Operational Improvements - Widen to 22 - foot wide pavement; widen intersection for left - turn storage lane at Turkeyfoot Road (see <u>Turkeyfoot Road Corridor Study</u>). Synchronization of signals with area-wide signal system.

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission,1996.

TABLE 8 - 1

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
Donaldson Road (KY 236)	I-75 (Kenton County)	KY 212 (Boone Co.)	3.6	30	100	N/A	26,083	Widen to accommodate four lanes of traffic and center left turn lane.
Erlanger - Crescent Springs Road	I-75	I-275	1.6	24	40	5,083	N/A	Widen to accommodate two or three lanes of traffic.
Dolwick Road Connector	I-275/Dolwick Road	Erlanger- Crescent Springs Road	1.3	New	New	N/A	N/A	New segment of roadway providing improved alternate across from Villa Hills/Crescent Springs area with Erlanger/Boone County area.
Hartman/Erlanger Road	Donaldson Road	Dolwick Road	0.9	New	New	N/A	N/A	Widen and realign.
Industrial Road	U.S. 42 (Boone County)	Turkeyfoot Road	2.9	24	100	12,450	N/A	Widen - to three lanes (center lane for left turn storage) or four lanes with left - turn storage lanes at Turkeyfoot Road and Dixie Highway. Synchronization of signals with area - wide signal system.
Richardson Road	KY1303/ Turkeyfoot Road	KY 17	2.0	17-19	30	4,070	2,715	Widen and realign- construct a new connector between KY 1303 and Richardson Road.
Richardson Road	U.S. 25 (Boone County)	Turkeyfoot Road	1.0	17-19	30	N/A	N/A	Widen - to two or three lanes. Widen intersection for left - turn storage lanes at KY 1303 and Dixie Highway.
KY 1018 (Hopeful Road)	U.S. 42 (Boone County)	KY 18 (Boone County)	-	18	50	N/A	N/A	Widen and reconstruct between Houston Road/Turkeyfoot Road to U.S. 42.
Buttermilk Pike	Dixie Post Office	Dixie Highway	0.4	21-22	40	16,150	13,339	Widen from two to three lanes.

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8 - 1

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
Orphanage Road	Dixie Highway	Relocated section at I-275	1.0	20-22	50	4,486-7,556	12,598	Widen - To two or three lanes.
Sleepy Hollow Road (KY 1072)	Adela Street	Dixie Highway	1.8	20	40	5,985-9,058	4,657 (94)-9,185	Widen to two 12 - foot lanes - Realign in parts; widen intersection at Amsterdam Road and Dixie Highway for left - turn storage lane.
Deverill Street	KY 8 Laurel Street	Laurel Street Adela Street	0.3 0.1	30 36	50 60	4,990 N/A	2,818 (94) N/A	Traffic Operational Improvements - Remove parking at key intersections to provide for left - turn storage lane (KY 8, Oak Street).
Anderson/Bromley Crescent Springs Road	Buttermilk Pike	KY 8	2.6	18-22	30	2,267	5,386	Widen and realign to provide improved alternate access between KY 8/Villa Hills/Crescent Springs and Erlanger area.
COLLECTORS:								
Pleasant Run Pike	Anderson Road	Beechwood Road	0.5	18-22	40-50	3,431-4,602 (88)	2,966	Widen - To two 11- foot lanes; widen intersections to provide left - turn storage lanes at Royal Drive, Grandview Drive and Anderson Road.
Buffington Station Road Connector	New Buffington Station Road at Southern Railroad	Turkeyfoot Road	0.9	New	New	N/A	N/A	New segment of roadway providing access between U.S. 25 (Boone County) and Turkeyfoot Road while discouraging through traffic movements along Autumn Road.
Dudley Pike	KY 17	Dixie Highway	3.9	20-21	50	7,250-14,255	8,169-14,981	Widen to three 11- foot lanes and widen to provide for left - turn storage lanes. For specific recommendations, refer to the <u>Dudley Pike Corridor Study</u> .
Amsterdam Road	Collins Road	Bromley/ Crescent Springs Rd. Intersection	1.7	18	30	3,637	1,387-4,123	Widen and reconstruct, providing for left - turn storage lanes for improved access to Villa Hills.

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8 - 1

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
Amsterdam Road	Bromley - Crescent Springs Road	Sleepy Hollow Road (S.R 1072)	1.3	20	30	N/A	N/A	Widen - To two 11 - foot lanes; widen intersections to provide for left - turn lane at Fort Henry Drive and Sleepy Hollow Road; and other realignments where necessary.
Amsterdam Road	Sleepy Hollow Rd. (KY1072)	Arlington Road	0.7	22 - 24	30	N/A	N/A	Traffic Operational Improvements - Parking prohibited at all times.
Pike Street/7th and 8th Streets	Pike Street: Main Street 7th and 8th St.: Russell Street	Russell Street	0.3	40	55	N/A	N/A	Traffic Operational Improvements - For specific recommendations, refer to <u>Central Covington Traffic Study</u> .
		Greenup Street	0.3	22 - 36	55			
Russell Street	19th Street	4th Street	1.4	17 - 39	30 - 66	N/A	N/A	Traffic Operational Improvements - Remove parking at key intersections for required turning movements.
19th Street/Highland Avenue	Henry Clay	Madison Avenue	1.2	27 - 40	40 - 60	5,935-11,667	6,355	Traffic Operational Improvements - Remove parking at key intersections to provide left - turn storage lanes.
Hands Pike	KY 17	KY 16	2.6	18	40	3,230-4,570	3,087-7,967	Widen and realign - To three 11 - foot lanes; widen intersections to provide for left - turn storage lanes at KY 17 and S.R 16. Improve section at steep grade approaching Wayman Branch Road. For specific recommendations refer to <u>South Covington Traffic and Development Study</u> .
Banklick Road	KY 1303	KY 16 (Walton Nicholson Road)	3.5	20	40	N/A	N/A	Widen and reconstruct to serve anticipated industrial growth.
Dolwick Road	Terminus of present location	Mineola Pike interchange (Boone County)	-	18	50	N/A	N/A	Widen to provide for increased traffic flow and left - turn storage lane serving industrial area.

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8 - 1

DESCRIPTION	FROM	TO	LENGTH (miles)	EXISTING WIDTH		A.D.T.*		SUMMARY
				PAVED	R/W	1990-91	1995-96	
KY 16/177 Connector	Taylor Mill Road	Decoursey Pike	2.0	New	New	New	New	New roadway to provide improved access between KY 16 and KY 177.
Western Reserve Avenue	Buttermilk Pike/ Collins Avenue	Anderson Road	0.8	20	40	N/A	N/A	Widen and realign to provide for improved access.
Garvey Avenue	Dixie Highway	Proposed Buffington Station Road Connector	2.2	18 - 22	50	N/A	N/A	Widen and realign to provide north/south access.
Sierra Drive/Erlanger - Crescent Springs Road Connector	Sierra Drive	Erlanger - Crescent Springs Road	--	New	New	N/A	N/A	Provision of connector road to increase access to Villa Hills.
McCullum Pike/Cox Road	KY 17	KY 16	2.2	18	40	2,425- 2,500	1,939 (94)	Upgrade existing road from McCullum Pike to Cox Road via Oliver Road, providing for improved east/west access between KY 17 and KY 16.
Independence Station Road (reclassify as collector)	Turkeyfoot Road	Madison Pike	3.4	20	50	1,305- 3,490	1,358- 2,435	Widen and realign to provide for improved east west access.
Old Taylor Mill Road (reclassify as collector)	I - 275	KY 16/ Wayman Branch Road	2.6	18	40	1,772 (92) - 3,092 (92)	2,332- 5,062	Widen and realign to provide for improved access.

A.D.T.- Average Daily Traffic Volume.

N/A- Not Available.

R/W- Right-Of Way.

* NOTE: Traffic counts (1990 - 1991) were taken during major reconstruction of a number of routes in Northern Kentucky. Therefore, these counts may not represent normal average daily traffic volumes.

SOURCE: Northern Kentucky Area Planning Commission.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

HIGHWAY IMPROVEMENTS COMPLETED OR UNDER CONSTRUCTION SINCE LAST PLAN UPDATE

The Kentucky Transportation Cabinet's Six-Year Program provides for a number of transportation improvements expected to occur over the next several years.¹ This information, which is available in the offices of the NKAPC, provides a description of the various projects within Kenton County and projects within Boone County and Campbell County, which affect Kenton County. Since 1991, a number of highway improvements have been completed, or are under construction. The projects and their status are as follows:

- I - 75 (I-275 north to 3000 feet south of Dixie Highway) - completed
- I - 75 (U.S. 42 to KY 338) - completed
- I - 75 (12th Street Interchange) - completed
- I - 75 (12th Street South to Kyles Lane) - completed
- Mt. Zion Road (I - 75 Interchange to Dixie) - completed
- Kyles Lane (I - 75 to Highland Avenue) - completed
- Highland Avenue (Kyles Lane to KY 17) - completed
- Thomas Moore Parkway Extension (St. Elizabeth Hospital to Dudley Road) - completed
- Horsebranch Road Extension (Orphanage Road to Thomas More Parkway) - completed (This project was funded through a private/public partnership which included the cities of Crestview Hills and Edgewood, Kenton County Fiscal Court, Kentucky Transportation Cabinet, and several private sector companies in the general area.)
- 43rd Street/Latonia Connector (railroad underpass) - completed
- Howard Litzler (KY 16 to S. R. 17) - completed
- Anderson Road (I - 75 to Pleasant Run Road) - completed
- KY 1018 (U.S. 42 to KY 18 - Boone County) - under construction
- Connector Road east of I - 75 (John Weaver Road to Mt. Zion Road) - completed
- Installation of new traffic signal system in downtown Covington for congestion mitigation - under construction, project completion expected in 1997

PROJECTS CURRENTLY INCLUDED IN THE SIX YEAR PROGRAM

The following is a summary of projects currently included in the Kentucky Transportation Cabinet's Six Year Highway Plan located in Kenton County, and in Campbell or Boone Counties which impact Kenton County:

- I-75 - Widening of Interstate 75 from KY 338 to the KY 491 Interchange through Boone, Grant and Kenton Counties, is planned for construction in Fiscal Year

¹ The Kentucky Transportation Cabinet's Six-Year Program includes construction projects to be commenced during a given biennium of the legislature. These projects are based upon anticipated revenues to be appropriated by the General Assembly. The Program includes a list of pre-construction projects in various stages of planning and preparation and a four-year planning document for projects which are being reviewed by the Kentucky Transportation Cabinet, but not being included for funding during the first two years of the Six-Year Program. This program is then reviewed and approved by the General Assembly

(FY) 1997.

- 12th Street (Shortway) Bridge - Replacement of the bridge between 12th Street in Covington and 11th Street in Newport. The new bridge will have four (4) travel lanes. Right-of-way acquisition and utility relocation is scheduled for FY 1997, with construction beginning in FY 1998.
- KY. 16 / 9 Connector Road - A new connector road from KY 16 to KY 9 (Campbell Co.) north of Interstate 275 is slated for preliminary engineering design and environmental study in FY 1997. Design of the new route is proposed in FY 2000.
- Installation of traffic signal systems - Installation of traffic signal systems, for congestion mitigation, along KY 8, KY 1120, KY 16, and KY 17 in Ludlow, Bellevue, Newport, and Taylor Mill is scheduled for design in FY 1996 and construction in FY 1997. The limits in Taylor Mill will be from the south Covington city limits to the KY 16 / KY 17 connector.
- I-75/71 - The widening and alignment of I-75 from 3000 feet south of Dixie Highway to Kyles Lane is slated for right-of-way acquisition and utility relocation during FY 1997. Construction is planned for FY 1998.
- I-75/71 Interchange at Donaldson Road - Reconstruction of the Interstate 71/75 Interchange at Donaldson Road is scheduled for right-of-way acquisition and utility relocation during FY 1997. Construction is proposed for FY 1998.
- Turkeyfoot Road (KY 1303) - The relocation of Turkeyfoot Road (KY 1303) from Lindenwood Drive to Autumn Road is phased for right-of-way acquisition and utility relocation during FY 1996 and project construction during FY 1999.
- Turkeyfoot Road (KY 1303) - Widening and realignment from Dudley Road to Lindenwood Drive is scheduled for design engineering in FY 1997. This project is planned for right-of-way acquisition and utility relocation during FY 2000. Construction is slated during FY 2002.
- Turkeyfoot Road (KY 1303) - Widening and realignment of Turkeyfoot Road (KY 1303) from Autumn Road to West Richardson Road is planned for design engineering in FY 1998.
- Dixie Highway/Turkeyfoot Road Intersection - The addition of a left turn lane, for congestion mitigation, on Dixie Highway (US 25) at Turkey foot Road (KY 1303) is phased for right-of-way acquisition and utility relocation during FY 1996 and project construction during FY 1998.
- Dixie Highway (US 25) at Sleepy Hollow Intersection - Construction of a left turn lane on Dixie Highway (US 25) at Sleepy Hollow Road (KY 1072), for congestion mitigation is slated for FY 1996.

- Buttermilk Pike (KY 371) - The widening and reconstruction of Buttermilk Pike from the post office to Dixie Highway (US 25) is scheduled for right-of-way acquisition and utility relocation during FY 1997 and project construction during FY 1998.
- 12th Street / KY 1120 - Reconstruction including minor widening of 12th Street (KY 1120) from Interstate 75 to the Shortway Bridge is slated for right-of-way acquisition and utility relocation during FY 1996. Construction is anticipated in FY 2001.
- Ohio River Bridge - A new Ohio River Bridge from Covington to Cincinnati, near the Suspension Bridge, is phased for design engineering in FY 2001 and construction during FY 2002.
- Madison Pike - Major widening and roadway alignment of KY 17 (Madison Pike) from the four lane section to Pelley Road is slated for construction in FY 1998 and FY 1999. Right-of-way acquisition and utility relocation is currently underway.
- Madison Pike - New roadway alignment of KY 17 (Madison Pike) from Pelley Road to KY 16 is phased for right-of-way acquisition and utility relocation during FY 2000. Construction is anticipated in FY 2002.
- Taylor Mill Road - Reconstruction of KY 16 (Taylor Mill Road) from Interstate 275 to Hands Pike is scheduled for design engineering in FY 1999. The acquisition of right-of-way is planned for FY 2002.
- KY 17 / KY 16 Connector - Construction of a connector road from KY 17 at Highland Pike to KY 16 at Grand Avenue is phased for engineering design in FY 1997. The acquisition of right-of-way and utility relocation is proposed for FY 2001. NOTE: The alignment of this connector has been the subject of much discussion during this Comprehensive Plan Update process -- refer to "East/West Connector north of I-275" under "Prospects to Improve East/West Access".
- Dixie Highway - The reconstruction of Dixie Highway (US 25) through Park Hills to address drainage problems is scheduled for design engineering in FY 1996. The project is slated for acquisition of right-of-way and utility relocation during FY 1997. Construction is anticipated during FY 1999.
- Bridge Replacement - Bridge replacement over the railroad at KY 8 in Ludlow, is phased for right-of-way acquisition and utility relocation in FY 2000. Construction is planned for FY 2002.
- KY 536 Improvement - Bristow-Independence Road bridge (KY 536) replacement over Banklick Creek is scheduled for right-of-way acquisition and utility relocation for FY 1997. Construction is slated for FY 1999.

- KY 536 - Reconstruction and realignment of KY 536 to eliminate the at grade railroad crossings at Banklick Road and Hogreffe Road is scheduled for design engineering during FY 1996. Right-of-way acquisition and utility relocation is planned for FY 1997. Construction is proposed in FY 1999.
- Covington Traffic Signal System - Computerized - The rehabilitation of the downtown Covington traffic signalization system, for congestion mitigation, is currently under construction.

RECOMMENDED TRANSPORTATION PLAN IMPROVEMENTS

Highway Plan

The Highway Plan for Kenton County is shown on Maps [8A](#) and [8B](#) and summarized in [Table 8 - 1](#). The Highway Plan is similar to the plan contained within the 1991 Plan Update, excluding those recommended highway projects which have been completed or are under construction and anticipated to be completed in the near future.

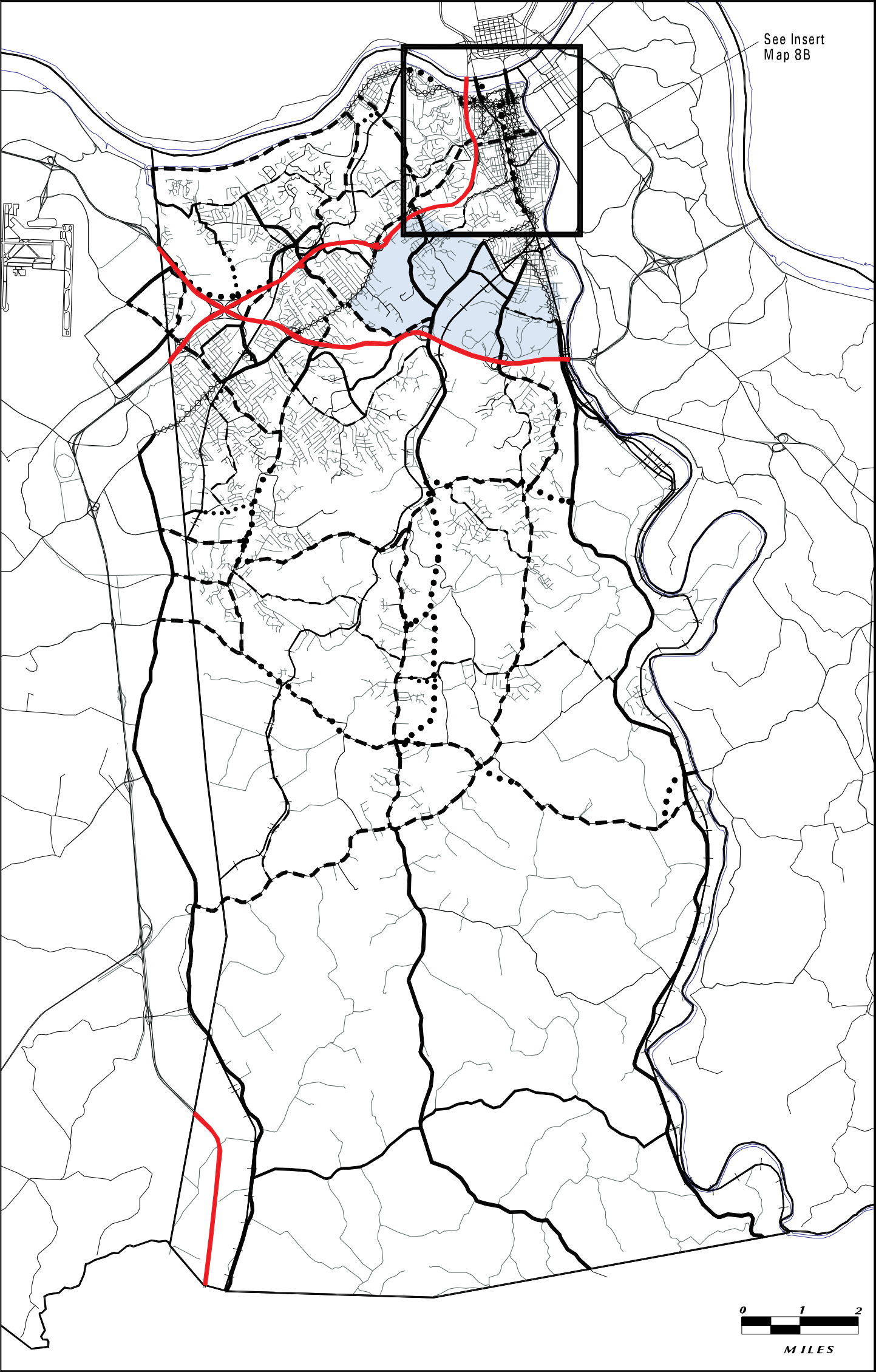
The Highway Plan recommends improvements to the existing roadway system and in some instances new roadways. Recommendations may include various improvements along a given corridor, including widening, realignment, and other improvements, such as intersection redesign.

To effectively evaluate and select a system of recommended highway improvements for this and previous Plan Updates, the following classification of highway facilities and service criteria was used:

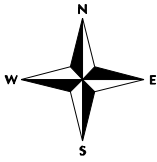
Freeways - These facilities are divided highways with full control of access and grade separations for all intersection traffic flows. There are no traffic signals, pedestrians, or parking to interfere with the continuity of high-speed travel. The controlled access of freeways results in high-lane capacities enabling them to carry up to three times as much traffic per lane as arterial streets.

The principle design features of freeways include the following:

1. Control of access - Full control of access permits ingress and egress only at designated points. It eliminates possible marginal interference and assures that the high capacity of the initial construction will be maintained throughout the life of the facility.
2. Grade Separations - All at-grade intersections with cross streets and railroads are eliminated by grade separation structures to permit continuous traffic flow at high speeds with no interruptions.
3. Interchanges - Ingress and egress points are provided at selected locations commensurate with traffic and/or land use requirements.



See Insert
Map 8B



NORTHERN KENTUCKY AREA PLANNING COMMISSION

2332 Royal Drive
Fort Mitchell, Kentucky 41017
TEL 506/331-8980

FAX 506/331-8987

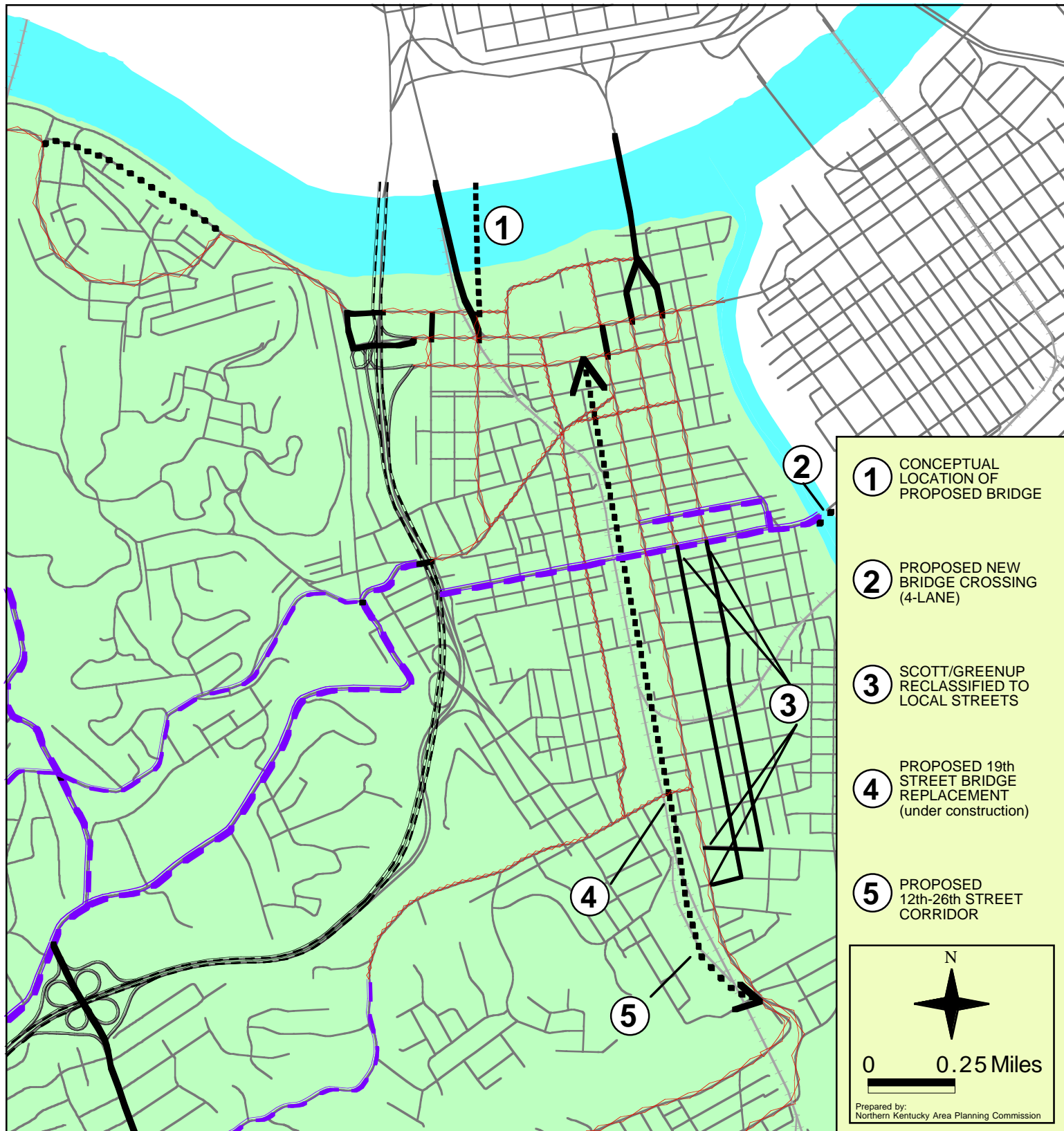
The information presented in this product is accurate for planning purposes only.

MAP 8A

1996 COMPREHENSIVE PLAN KENTON COUNTY, KENTUCKY

TRANSPORTATION PLAN

- | | | | |
|-------|----------------------------------|-------|---|
| — | Existing Arterial | | Proposed Collector |
| - - - | Arterial Upgrade | ~~~~~ | Collector Operational Improvement |
| | Proposed Arterial | — | Existing Freeway |
| ~~~~~ | Arterial Operational Improvement | - - - | Proposed Freeway Improvement |
| — | Existing Collector | ■ | Proposed East/West
Corridor Study Area |
| - - - | Collector Upgrade | | |



HIGHWAY PLAN-CORE AREA

DESIGNATION	EXISTING	UPGRADE EXISTING	OPERATIONAL IMPROVEMENTS	PROPOSED
COLLECTOR				
ARTERIAL				
FREEWAY				
INTERCHANGE				

MAP
8B

Ramps are constructed to provide adequate approaches to the mainline of the freeway and to minimize interference with through traffic.

4. Lanes - A minimum of four twelve-foot lanes are provided and curbs, where used, are offset at least two feet from the pavement edge.
5. Medians - Median Dividers separate opposing traffic and minimize the potential of head-on collisions.
6. Shoulders - Paved shoulders provide refuge for emergency vehicles.
7. Design speed - The maximum design speed for through lanes on freeways is 65 miles per hour in outlying areas and 55 miles per hour in urban areas where physical and/or land use conditions make the use of higher design speeds unreasonable. Horizontal alignments, vertical curvature and grades, super-elevation, and sight distance are correlated to achieve efficient design.
8. Rights-of-way - Rights-of-way are adequate to encompass all construction elements including side slopes and marginal drainage installations.

Expressways - Expressways represent an intermediate type of facility, incorporating many of the design features of freeways, but also including segments comparable to arterial streets. (Examples of expressway design would include state route reconstruction of KY 17 south of I-275 to just north of Hands Pike, AA Highway in Campbell County, etc.) Lane widths, median requirements, sight distances, alignment, and grades are generally similar to those for freeways; however, expressway design speeds are somewhat lower.

Expressways provide full control of access to abutting properties, thereby precluding traffic interference from abutting land. Some intersections are at-grade and may be signalized. Most new highways in outlying or rural areas are designated as expressways or controlled access arterials (even when only two lanes are provided) to protect their rights-of-way from encroachment.

Arterial Streets - Arterial streets are important components of the total transportation system. They serve both as feeders to freeways and expressways and as principle travelways between major land use concentrations. The primary function of an arterial street is traffic service. Consequently, direct land service functions should be minimized and high standards for curb cuts and driveways should be applied to protect arterial street capacities so they may function according to design. Arterial streets should include many of the same design characteristics as expressways. Where new as are to be constructed or existing routes improved, access to abutting property should be strongly controlled and limited. Such control may be achieved by use of parallel access roads or other types of improvements. In addition, on-street

parking should not be permitted on major arterial routes.

Typical daily capacities for regular arterials (50 percent green signal light time and no separate left turn lane) range from approximately 10,000 vehicles, for a two-lane route to over 20,000 vehicles for a four-lane facility. Typical daily capacities for special arterials with separate left turn lanes would be much higher.

Collector Streets - Collector streets are designed to provide both land service and traffic movement functions. They serve as the intermediate feeders between local streets and arterials and primarily accommodate short trips.

Typical capacities for collector streets are somewhat less than those for arterials.

The following is a summary of some of these major highway recommendations for the region:

Turkeyfoot Road (KY 1303) Corridor - The Turkeyfoot Road Corridor from Dudley Pike south of Richardson Road continues to be a high priority project as part of this plan update. Although this project is identified within the Six-Year Plan in two stages of development, it continues to be pushed back in timing schedule for completion. It is strongly recommended that the scheduling for construction of this entire corridor be given a higher priority by KTC to improve the safety and capacity of a major growth area in Kenton County.

Taylor Mill Road (KY 16) - This project continues to be a very important project to improve north/south access to the Taylor Mill area. The need for this project was identified as part of the Taylor Mill Corridor Study, previously prepared by the NKAPC, with assistance from the Taylor Mill Advisory Committee. This route, which is identified in the KTC Six-Year Plan, calls for the widening of KY 16 from I-275 south to Hands Pike to three lanes. Widening and realignment in the area of Old Taylor Mill and KY 16 is also recommended to handle increased traffic through this area.

New Ohio River Bridge - This new Ohio River bridge crossing was recommended in the previous comprehensive plan. It was proposed to connect downtown Covington with downtown Cincinnati, relieving the traffic on the Suspension Bridge. Route approval by KTC and Ohio Department of Transportation would parallel existing Clay Wade Bailey Bridge as a one - way paired system. More recently, this new bridge structure has been placed on hold, awaiting the outcome of the I-71 corridor study.

New Licking River Bridge - A new bridge crossing over the Licking River, in the vicinity of I-275, is proposed to improve access to the old Louisville and Nashville Railroad yards which are recommended to be redeveloped for industrial use. Access is currently limited to the site via I-275 and KY 177

(Decoursey Pike) and Locust Pike. A new bridge could provide improved access to this area via I-275/KY9/KY 546 (AA Highway) in Campbell County.

KY 17 (Madison Pike) from near north of Hands Pike south to Nicholson - Widening and relocation. Long-term traffic needs will require a new roadway to be constructed. This project entails the construction of a new route that would extend from the end of the existing four-lane highway, just north of Hands Pike south to the Nicholson area, generally following to the east of existing KY 17. The first phase of this project (currently underway in property acquisition) would extend south into KY 17 near Pelley Road. The second phase would extend from the Pelley Road area to to the Nicholson area. Schedule for construction - around the year 2002.

KY 1120 (12th Street) - This project has been delayed over the years within the six year plan; however, due to major improvements completed on reconstruction of I-75 (new interchange completed at 12th and Pike and closure of Euclid and Jefferson interchange) makes this an extremely important project. This project calls for the construction of a new bridge crossing the Licking River, connecting 12th Street in Covington with 11th Street in Newport, which is an extension of the KY 1120 route into Campbell County. This project is within the KTC's Six-Year Plan to contain a total of four lanes with construction scheduled for fiscal year 1998. This bridge replaces the old 12th Street Shortway Bridge and continues to be a very important project to provide for improved access between I-75 in Covington with I-471 in Newport. This project is currently identified in the Six-Year Plan by KTC for major improvements.

Madison Avenue north/south corridor through the central portion of Covington - This project continues to be an important project as part of this plan update. It was first incorporated into the 1986 plan update. This project, which is part of a study that was authorized by the KTC recommends that Madison Avenue function as the major north/south route through the Covington area. Madison Avenue would serve as the major north/south route south of 12th Street (KY 1120) and connect with Scott Boulevard and Greenup Street via 11th and 12th Streets north of 11th Street to the Ohio River. South of 12th Street, Scott Boulevard and Greenup Street would be removed from KY 17 as one-way paired streets, and converted back into local two-way streets to serve local neighborhood traffic. Recommended improvements would include:

- On-street parking along Madison Avenue would be removed from Sterret Avenue north to 11th Street, providing for four lanes of travel, two north bound and two south bound (the right turn lane only at Sterret Avenue and other signs would be removed to provide for the additional through north bound lane). Several key intersections with Madison Avenue would need widening, including 19th Street, 16th, 15th, and 12th Streets.
- Construction of potential off-street parking lot at the northeast corner of Sterret and Madison Avenue and in the general vicinity of the city of

Covington Administration Building area.

- Ample off-street parking and/or on-street parking is available along existing side streets on Madison Avenue generally north of Sterret Avenue. (A number of residents/apartments have off-street parking capability to the rear of their structures, and could be made available for additional off-street parking).
- Traffic signals along this entire corridor would need to be upgraded/replaced and interconnected to provide for needed directional traffic flows for both peak am/pm and off peak conditions. The state of Kentucky is currently in the process of constructing new signals in Covington along with a computerized central operating system for these routes.)
- Disincentives are proposed along Scott and Greenup Streets to discourage short-cut traffic from continuing to use neighborhood streets, particularly sections of Scott Boulevard, Greenup Street and Eastern Avenue south of 12th Street.
- Recommend changing the direction of the traffic flow on Third Street between Madison Avenue and Scott Street in Covington, to accommodate the proposed transit operations at the new Kenton County Courthouse and Garage.

Taylor Mill Road - Decoursey Pike Connector - A new road connector, extending from Decoursey Pike west to Taylor Mill Road and extending into Wayman Branch Road, is proposed to be located south of Wolf Road. This proposed route would provide improved east/west access in this general area, which is characterized by steep topography and limited access between the north-south arterials, Taylor Mill Road and Decoursey Pike.

Garvey Avenue - Dixie Highway to the Proposed Buffington Station Road Connector - Widen and realign to provide improved north-south access in Elsmere. This Plan Update redesignates much of this area for industrial land use. The need for roadway improvements in this area is most important for this area to properly develop.

Bromley - Crescent Springs Road, connecting Anderson Road, Beechwood Road with KY 8 - Much development is happening in the Crescent Springs/Villa Hills area and an alternate access is extremely important to adequately serve these growing areas. This improvement would provide for a link connecting with the Dolwick Connector and Erlanger and Boone County, via the new Turfway Road facility.

Cross County Highway - A cross county connector, extending from the vicinity of the I - 71/75 Interchange, through Boone and Kenton Counties into Campbell

County, was identified as a project which needed further study in previous plan updates. During the previous plan updates, the Kentucky Transportation Cabinet studied various alternatives for this type of facility. Much concern has been addressed in the areas of southern Kenton and Campbell Counties concerning the need for such facility. This Plan Update continues to recommend that the long-term need for this facility is important and necessary and that it be fully studied by representatives from Campbell, Boone and Kenton Counties and with input from the OKI. In the short-term, the Comprehensive Plan recommends the upgrading of a series of east - west routes generally following Kentucky KY 536 and extending from I-75 in Boone County, via Mount Zion Road to the Visalia Bridge, and then extending from the Visalia Bridge via Pond Creek Road to US 27. This route was also identified in previous plan updates.

Projects to Improve East/West Access

These projects were included in previous Plan Updates. They are identified here in order to emphasize the need for improved east/west access.

East/West connector north of I-275 - This Plan Update recommends the need for a new east/west connector north of I-275 in the vicinity of KY 17/16, with an alignment to be determined based on further study (the study area corridor is shown on Map 8A). During review of the need for such a connector, it was noted that some significant existing traffic problems at Highland Avenue and at Grand Avenue might be further aggravated with construction of the alignment currently shown in the KTC Six Year Plan. It was concluded that an east/west connector in this vicinity was most important. It was also agreed that further study was necessary for the purpose of considering alternative alignments which could be submitted to, and discussed with, KTC officials.

Dudley Pike, from U.S. 25/Dixie Highway to KY 17 - Recommendations concerning this corridor were prepared by the Northern Kentucky Area Planning Commission and included in the Dudley Road Corridor Study.

Richardson Road and KY 1828 - from Dixie Highway (U.S. 25 via KY 17 and Wayman Branch Road) to KY 16.

Mount Zion Road (KY 536) from I - 75 to Visalia Bridge Crossing at Licking River Widen and realign. This important connector could provide for an improved east/west access between Kenton and Campbell counties, using the existing highway system with recommended realignment and widening. During 1995, the NKAPC completed a study recommending improvement of the corridor.

Other Recommended Projects

Ohio River Bridge (Boone County) - New Ohio River crossing providing improved access between western Hamilton County (Ohio) and Boone County. Currently included in the Boone County Comprehensive Plan. The NKAPC staff will participate in the evaluation of this regional facility, with OKI.

KY 8 - Highway Avenue, from Swain Court to Southern Railroad Bridge. New roadway to provide access to areas proposed to be redeveloped along the riverfront in Covington and Ludlow. The West Covington Riverfront Study includes specific recommendations.

Western Reserve Avenue from Buttermilk Pike/Collins Avenue to Anderson Road - Change from local to collector street -- widen and realign at certain locations.

Independence Station Road from Turkeyfoot Road to Madison Pike - Changed from local to collector street during previous plan update -- widen and realign at certain locations.

Mills, Pruett, and Petty Roads from Taylor Mill Road to Decoursey Pike - Changed from local to collector streets during previous plan update. Improve access to proposed park on Mills Road, and east/west access -- widen and realign. A portion of this route, along Mills Road from KY 16 to Mills Road Park, was widened and improved by Kenton County Fiscal Court during 1996.

Green Hill Drive - It is recommended that Green Hill Drive be opened at its terminus with Sugar Camp Road, once Sugar Camp Road is upgraded to meet current standards.

Intersection Improvements

As a result of high traffic volumes, congestion and a high incidence of accidents, several key intersections are recommended to be improved to alleviate these problems. These intersections include Dixie Highway with the following:

- Sleepy Hollow Road (In KTC Six Year Plan)
- Kyles Lane
- Beechwood Road
- Orphanage Road
- Turkeyfoot Road

TRANSIT

The Transit Plan is a critical component of the Transportation Plan for meeting the air quality and transportation needs of the area. This Plan Update, as previously noted incorporates many of the recommendations of the OKI Regional Transportation Plan, as amended, regarding transit to include:

- Greatly expanding transit service by extending the service area and improving frequency of service. Further study needs to be given to providing improved transit service from the Covington central area to the suburban locations where many of the new jobs are being created; and,
- Pursue study of development of alternative transit facilities, including rail, busways, High Occupancy Vehicle (HOV) lanes for transit, ride sharing, park and ride and transit centers - facilitating transfer of passengers from one mode to another.

Transit Ridership via the Transit Authority of Northern Kentucky (TANK) remained relatively steady at approximately 3.65 million from 1986 through 1990. Transit Ridership increased to a ten year high of 3.8 million in 1991, but then decreased nearly eleven percent to 3.39 million riders in 1996.

More recently, in the fall of 1996, a major change occurred to routes entering Cincinnati. TANK ceased operations from the Dixie Terminal in downtown Cincinnati, and the buses which had been entering Dixie Terminal began operating along the downtown streets in Cincinnati. TANK currently has 104 buses, 62 of which are wheelchair accessible through the use of lift equipped vehicles. Also in operation is a specialized transportation service, known as RAMP, which provides curb to curb service employing ten lift equipped vans.

TANK has recently added new routes in Boone County to include: Burlington, Oakbrook, Richwood, Union, Walton, and the Greater Cincinnati/Northern Kentucky International Airport, providing service over 27 routes.

Efforts should be made to increase usage of public transportation as provided by TANK. Greater emphasis on this system provides for a more efficient movement of people and can reduce the number of vehicles on the highway system, thus contributing to improved air quality. Once again, realization of such added mass transit ridership seeks to also realize some of the objectives of sustainable development.

BICYCLE AND PEDESTRIAN TRAVEL

The OKI Transportation Plan Update, as previously noted, has recommended that funding priority be given to projects which promote bicycle and pedestrian travel to reduce vehicular trips. Consideration should be given for these modes of travel when new streets and bridges are being constructed or reconstructed. It is recommended

that developers should be encouraged to provide sidewalks and bikeways as part of the infrastructure of the site being developed, as well as providing connections to other neighborhoods and community facilities. It is further recommended that criteria be established to insure such provisions for pedestrian and bicycle facilities are incorporated within all types of land development plans.

In 1993, OKI developed a bicycle plan indicating improvements which are needed to increase bicycle travel in the region, as follows:

- Overcoming physical barriers such as rivers, hills, freeways, and railroads
- Installation of bicycle lockers and/or racks at destination points
- Promotion of activities to encourage walking and bicycling
- Publication of a bicycle and pedestrian commuter map.

Bicycle corridors in the OKI region are predominately on-road facilities, which utilize existing streets, such as shared lanes, bike lanes, wide outside lanes, and paved shoulders. In Northern Kentucky the majority of bicycle corridors are shared roadways which need improvements for bicycle travel including wider lanes, paved shoulders, or the construction of bicycle lanes. Potential corridors include:

- KY 8 through Villa Hills, Bromley, Ludlow, Covington, Newport, Dayton and Bellevue and other major corridors such as: KY 16, KY 17, KY 1303, KY 536 and KY 371
- KY 177 in Kenton County including the proposed bike path along the Licking River in Covington
- The abandoned Green Line rail corridor
- Old Taylor Mill Road
- KY 9 in Campbell County
- Proposed bike routes to the city of Florence and other neighboring locations in Boone County

It is recommended that a bicycle plan be developed for Kenton County, and coordinated with the OKI Regional Bicycle Plan. A task force is recommended to be established to work with NKAPC on this plan.

AIR TRANSPORTATION

The Cincinnati/Northern Kentucky International Airport, owned by the Kenton County Fiscal Court, is the primary air carrier airport serving all of Northern Kentucky and the Cincinnati Metropolitan area. Accessible primarily via I-275, the airport is located in northeastern Boone County, two miles west of the Kenton County line.

The largest general aviation airport in the metropolitan area, Lunken Municipal (City of Cincinnati) Airport, is also easily accessible to Northern Kentucky via I-275 from Campbell County. Lunken Airport is located in Hamilton County, Ohio, across from the city of Fort Thomas.

Other general aviation airports within approximately ten miles of Northern Kentucky are Cincinnati - Blue Ash Airport, in northeastern Hamilton County; and Clermont County Airport, near Batavia, Ohio.

The Cincinnati/Northern Kentucky International Airport encompasses approximately 6,000 acres in Boone County and consists of three runways: (1) a north - south runway which has been extended to 11,000 feet in length; (2) an east - west runway which has been extended to 10,000 feet in length; and (3) a north - south runway 10,000 feet in length. A second east - west runway was closed due to the construction of Concourse B. The airport master plan proposes a 2,000 foot extension to the east - west runway and the construction of another north - south runway 8,000 feet in length.

Over \$650 million in projects are currently under construction or have been completed during the past five years, making the airport one of the fastest growing airports in the country, both in terms of facilities and air service. These projects include the Delta and Comair Airlines expansions, additional parking garage facility, and a runway extension.

During 1995, the airport served 15.2 million passengers, an increase of approximately 95 percent between 1986 and 1991, and an increase of 322 percent between 1986 and 1995 (Table 8-2). The airport is on target to serve approximately 18.2 million passengers in 1996, an 19.7 percent increase over 1995. The airport has 17 carriers which offer over 520 daily departures, an increase of approximately 33 percent since 1990. Passengers can travel to 107 cities non-stop, including seven non-stop international flights.

Table 8-3 shows the number of flight operations, by type, from 1990 to 1995. Since 1990, the number of flight operations have increased from nearly 292,000 to just over 365,000 in 1995, a 25 percent increase.

Table 8-4 shows the history of air cargo shipments from 1990 - 1995. Since 1990, the poundage of shipments increase of 61% to 586.568 (millions of pounds).

The current Master Plan for the airport was developed in 1995. This plan recommends facility improvements in three phases and estimates capital costs. Short-term projects include a new rent-a-car service area, extension of a north-south runway, expansion of Terminal Parking Garage, and expansion of the United States Postal Service Facility. Construction has already begun on some of these projects.

The Kenton County Airport Board has established an Aviation Noise Abatement Committee, made up of representatives from residential areas surrounding the airport. The main purpose of the committee is to review both existing and potential aircraft operating procedures and recommend those that will in a safe manner, best mitigate noise in affected neighborhoods.

TABLE 8-2
NUMBERS OF PASSENGERS ENPLANED AND DEPLANED BY YEAR
CINCINNATI/NORTHERN KENTUCKY INTERNATIONAL AIRPORT
1990-1995

YEAR	NUMBER OF PASSENGERS ENPLANED	PERCENT CHANGE	NUMBER OF PASSENGERS DEPLANED	PERCENT CHANGE	TOTAL	PERCENT CHANGE
1986	2,359,983	5.5	2,366,845	5.5	4,726,828	5.5
1987	3,649,041	54.6	3,657,587	54.5	7,306,628	54.6
1988	4,010,751	9.9	4,038,016	10.4	8,048,767	10.2
1989	4,313,828	7.6	4,346,533	7.6	8,660,361	7.6
1990	4,578,284	6.1	4,618,620	6.3	9,196,904	6.2
1991	5,038,090	10.0	5,088,729	10.2	10,126,817	10.1
1992	5,772,841	14.6	5,822,805	14.4	11,595,646	14.5
1993	6,106,937	5.8	6,175,940	6.1	12,282,877	5.9
1994	6,796,761	11.3	6,889,588	11.6	13,686,349	11.4
1995	7,590,864	11.7	7,632,436	10.8	15,223,300	11.2

SOURCE: Office of Planning and Development, Cincinnati/Northern Kentucky International Airport.
PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8 - 3
NUMBER OF FLIGHT OPERATIONS BY TYPE *
CINCINNATI/NORTHERN KENTUCKY INTERNATIONAL AIRPORT
1990-1995

Y EAR	AIR CARRIER	MILITARY	GENERAL	TOTAL	PERCENT CHANGE
1990	267,428	1,774	22,797	291,999	10.2
1991	281,034	1,492	14,899	297,425	1.9
1992	292,562	1,218	11,764	305,544	2.7
1993	297,853	1,131	13,220	312,204	2.2
1994	323,432	1,593	14,814	339,839	8.9
1995	348,949	1,215	14,950	365,114	7.4

* NOTE: A flight operation is defined as one landing or one takeoff.

SOURCE: Office of Planning and Development, Cincinnati/Northern Kentucky International Airport.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TABLE 8 - 4
AIR CARGO SHIPMENTS BY TYPE
CINCINNATI/NORTHERN KENTUCKY INTERNATIONAL AIRPORT
(In Millions Of Pounds)
1990-1995

YEAR	AIR MAIL	AIR EXPRESS	AIR FREIGHT	TOTAL *	PERCENT CHANGE
1990	62.524	234.762	65.196	362.482	14.0
1991	62.170	225.322	84.358	371.850	2.58
1992	83.874	253.066	88.416	425.356	14.39
1993	90.078	296.022	92.860	478.960	12.61
1994	87.170	349.724	85.828	532.722	11.22
1995	97.122	399.41	90.036	586.568	10.11

* Total shipments and receipts.

SOURCE: Office of Planning and Development, Cincinnati/Northern Kentucky International Airport.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

TRANSPORTATION FOCUS GROUP INPUT

The transportation focus group met extensively to review issues from the "town meeting" and other important transportation issues for Kenton County. Several of the highly ranked issues from the "town meeting" were related to transportation concerns. The focus group reviewed several documents from various organizations and agencies. These include the OKI Regional Transportation Plan, "Managing Mobility: Year 2000", several studies relevant to the I-71 corridor study, and The Cincinnati/Northern Kentucky International Airport Master Plan Study "Vision 2011 - Focusing On The Future". Representatives from OKI, the Airport, the Kentucky Transportation Cabinet (KTC), and the Transit Authority of Northern Kentucky (TANK) also served on and made presentations to the focus group.

The focus group has reviewed the uncompleted projects from the 1991 Comprehensive Plan Update as shown on [Table 8-1](#). These projects were then prioritized and are listed in [Table 8-5](#). The highest ranking projects are discussed in further detail as follows (additional detail in connection with applicable projects can be found in the KTC Six-Year Plan Review):

Freeway and Arterial Roads

1. Turkeyfoot Road (KY 1303) corridor, from I-275 to Mt. Zion Road. This project is identified in the six-year plan in two stages consisting of overall planning and design, and construction from Dudley Pike to Autumn Road.
2. I - 75 Widening - Kyles Lane to Dixie Highway - This project which is within the KTC Six Year Plan proposes to widen I - 75 to provide an additional southbound lane to improve traffic flow and to realign the sharp bend in the roadway. This improvement includes the section of I-75 from 3,000 feet south of Dixie Highway to Kyles Lane.
3. Turkeyfoot Road I-275 to Dixie Highway - Widen from two to three lanes and improve intersection of Turkeyfoot Road and Dixie Highway. The KTC Six Year Plan proposes widening and a left turn lane on Dixie Highway at Turkeyfoot Road.
4. Taylor Mill Road (KY 16) - I-275 south to Hands Pike/Independence area, widen and realign. The initial project is in the KTC Six Year Plan for design engineering and right-of-way acquisition.
5. Stevenson Road (KY 236) - Widen to twenty-two foot wide pavement from Turkeyfoot Road to Dixie Highway and widen intersection at Turkeyfoot. Except for the intersection at Turkeyfoot Road, this project is not included in the current KTC Six Year Plan.

TABLE 8 - 5
TRANSPORTATION FOCUS GROUP
RECOMMENDED HIGHWAY IMPROVEMENTS
UNCOMPLETED PROJECTS - FROM 1991 PLAN UPDATE

PAGE 1 OF 3

RANK ⁽¹⁾	PAGE - PROJECT NUMBER ⁽²⁾	PROJECT
FREEWAY AND ARTERIAL ROADS		
1	1 - 5	Turkeyfoot Road: I-275 to Mt. Zion Road
2	1 - 1	I-75: Kyles Lane 3,000 feet south of Dixie Highway
3	1 - 4	Turkeyfoot Road: I-275 to Dixie Highway
4	4 - 4	Taylor Mill Road: I-275 to Hands Pike
5	4 - 9	Stevenson Road: Turkeyfoot Road to Dixie Highway
6	5 - 9	Buttermilk Pike: Dixie post office to Dixie Highway
7	4 - 1	KY 16/KY 177: 26th and Madison Avenue to Southern Avenue
8 (tie)	1 - 3	U.S. 25 (Dixie Highway): Boone County to 12th Street
8 (tie)	5 - 7	Richardson Road: U.S. 25 (Boone County) to Turkeyfoot Road
10 (tie)	3 - 6	East - West Connector: KY 17 to KY 16
10 (tie)	3 - 3	KY 1120: I-75 to Licking River
12 (tie)	4 - 7	KY 17: Pelly Road to KY 16
12 (tie)	4 - 8	KY 17: Relocated Sector North of Hands Pike to Pelly Road
14	3 - 4	Madison Avenue: 3rd Street to 26th Street
15	2 - 1	KY 536: I-75 to Visalia Bridge
16 (tie)	5 - 5	Industrial Road: U.S. 42 to Turkeyfoot Road
16 (tie)	2 - 3	KY 8 (4th/5th Streets paired system)
18	5 - 6	Richardson Road: Industrial Road extension to KY 17
19 (tie)	2 - 6	KY 8: Bromley to KY 212 (Boone County)
19 (tie)	2 - 7	KY 8: Swain Court to Southern Railroad bridge area
19 (tie)	3 - 2	Main Street: Clay W. Bailey Bridge to Pike Street

(1) Ranking provided by the Transportation Focus Group.

(2) See Table 8-1 for description of projects.

SOURCE: Transportation Focus Group ranking of uncompleted projects from the 1991 plan update.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

RANK ⁽¹⁾	PAGE - PROJECT NUMBER ⁽²⁾	PROJECT
22	3 - 1	Scott and Greenup Streets: 3rd Street to 11th Street (one - way paired system)
23	5 - 2	Erlanger - Crescent Springs Road: I-75 to I-275
24	2 - 5	KY 8: Bromley to Crescent Avenue
25	4 - 6	KY 16: Hands Pike to U.S. 25 (Boone County)
26	1 - 2	I-71 Extension (Boone County): I-71/I-75 Interchange to U.S. 25
27	5 - 4	Hartman/Erlanger Road: Donaldson Road to Dolwick Road
28 (tie)	5 - 3	Dolwick Road Connector: I-75/Dolwick Road to Erlanger - Crescent Springs Road
28 (tie)	4 - 2	Decoursey Pike (KY 177): Southern Avenue to Banklick Creek
30	6 - 2	Sleepy Hollow Road (KY 1072): Adela Street to Dixie Highway
32	4 - 3	New bridge across Licking River: Locust Pike to KY 9
33	6 - 4	Anderson/Bromley - Crescent Springs Road: Buttermilk Pike to KY 8
34	6 - 1	Orphanage Road: Dixie Highway to relocated section at I-275
35	3 - 5	12th/26th Street Connector: 12th Street to 26th Street
36 (tie)	6 - 3	Deverill Street: KY 8 to Adela Street
36 (tie)	4 - 5	Wayman Branch Road: Hands Pike to KY 16
38	2 - 4	New bridge across Ohio River
39	5 - 1	Donaldson Road (KY 236): I-275 to KY 212 (Boone County)
40	2 - 2	Alternative access corridor: I-75 to Villa Hills/Crescent Springs/Fort Mitchell/Ludlow
COLLECTOR STREETS		
1	7 - 6	Hands Pike: KY 17 to KY 16
2	7 - 9	Dolwick Road: Terminus of present location to Mineola Pike Interchange

(1) Ranking provided by the Transportation Focus Group.

(2) See Table 8-1 for description of projects.

SOURCE: Transportation Focus Group ranking of uncompleted projects from the 1991 plan update.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

RANK ⁽¹⁾	PAGE - PROJECT NUMBER ⁽²⁾	PROJECT
3	6 - 7	Dudley Pike: KY 17 to Dixie Highway
4	8 - 1	KY 16/177 Connector: Taylor Mill Road to Decoursey Pike
5 (tie)	7 - 2	Amsterdam Road: Sleepy Hollow Road to Arlington Road
5 (tie)	7 - 5	19th Street/Highland Avenue: Henry Clay to Madison Avenue
7 (tie)	7 - 3	Pike Street/7th and 8th Streets - Pike: Main to Russell 7th and 8th Streets: Russell to Greenup
7 (tie)	8 - 5	McCullum Pike/Cox Road: KY 17 to KY 16
9	8 - 3	Garvey Avenue: Dixie Highway to proposed Buffington Station Road Connector
10	8 - 7	Old Taylor Mill Road: I-275 to KY 16/Wayman Branch Road
11	6 - 6	Buffington Station Road Connector: New Buffington Station Road at Southern Railroad to Turkeyfoot Road
12	8 - 6	Independence Station Road: Turkeyfoot Road to Madison Pike
13	7 - 1	Amsterdam Road: Bromley - Crescent Springs Road to Sleepy Hollow Road
14	7 - 4	Russell Street: 19th Street to 4th Street
15	8 - 2	Western Reserve Avenue: Buttermilk Pike to Anderson Road
17 (tie)	8 - 4	Sierra Drive/Erlanger - Crescent Springs Road: Sierra Drive to Erlanger - Crescent Springs Road
17 (tie)	6 - 8	Amsterdam Road: Collins Road to Bromley - Crescent Springs Road Intersection
19	7 - 7	Banklick Road: KY 1303 to KY 16 Walton - Nicholson Road
20	6 - 5	Pleasant Run Pike: Anderson Road to Beechwood Road
22	7 - 8	Ritchie Avenue/Hazelwood Drive Extension: Terminus of present location to Erlanger - Crescent Springs Road

(1) Ranking provided by the Transportation Focus Group.

(2) See Table 8-1 for description of projects.

SOURCE: Transportation Focus Group ranking of uncompleted projects from the 1991 plan update.

PREPARED BY: Northern Kentucky Area Planning Commission, 1996.

6. Buttermilk Pike (KY 371) - This corridor is within the KTC Six Year Plan for widening from near the post office site to Dixie Highway to continue the improvements from I-75 south to the post office.
7. KY 16/ KY 177 - from 26th and Madison Avenue to Southern Avenue, traffic operational improvements including the synchronization of traffic signals. More details are provided in the "Latonia Area Traffic Study". This project is not included in the current KTC Six Year Plan.

Collector Streets

1. Hands Pike from KY 16 to KY 17 - improvements include widening and realignment, providing for left turn storage lanes at KY 16 and KY 17, and improving steep grade approaching Wayman Branch Road. For specific recommendations, refer to the "South Covington Traffic and Development Study."
2. Dolwick Road from terminus to Mineola Pike Interchange (Boone County) - widen for increased traffic flow and left turn storage lane.
3. Dudley Pike from KY 17 to Dixie Highway - widen to three lanes and provide for left turn storage lanes. For specific recommendations, refer to the "Dudley Pike Corridor Study".
4. KY 16/177 Connector from Taylor Mill Road/Wayman Branch to Decoursey Pike - new roadway to provide improved access.

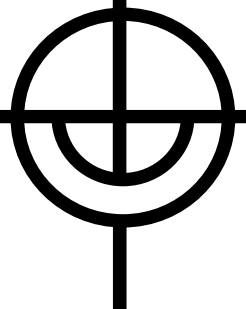
OTHER TRANSPORTATION FOCUS GROUP RECOMMENDATIONS

The following recommendations, from the Transportation Focus Group, have been identified for inclusion in this Plan Update:

- The transportation plan should encourage a conceptual road plan for those growth areas which are being developed or are anticipated to be developed during the planning period. This plan should provide for existing traffic and anticipate improvements needed for future demands.
- There is a need to further study means of connecting residential developments with both bicycle paths and sidewalks.
- Development of a coordinated computerized traffic signalization system which operates on an area wide basis. This system would incorporate the major arterial street system within the region with those systems developed for downtown Covington and Dixie Highway.
- A county-wide/regional funding mechanism should be implemented that would expedite spot and intersection improvements in a more timely manner.

- Further study of the OKI I-71 Corridor Study is recommended, and it should be expanded to include other corridors within Northern Kentucky.
- Maximize the maintenance of the existing roadways and traffic signal systems. These improvements should have the same or greater priority as new construction.
- Consideration of realignment of the intersection of Kyles Lane and Dixie Highway to Sleepy Hollow Road creating a 90 degree angle intersection with left turn storage lanes. For specific information see the "Dixie Highway Corridor Study."
- The need to widen KY 16, and make improvements to the intersections of north KY Route 16 and Old Taylor Mill Road and Sandman Drive at the Remke's store entrance, prior to any future commercial development.
- Roadways serving commercial areas should be designed to insure safe and efficient traffic movement using stringent access control measures and proper signalization. All major commercial areas should be accessible via mass transit.
- Potential future park and ride locations should be evaluated and coordinated with OKI's Park and Ride Program.
- Protect residential on-street parking by researching legal ways to reserve on-street parking for residents in highly urbanized and historic districts, and promote usage of existing parking in Covington's commercial areas for this purpose.
- Develop additional river transportation, such as river taxis, to improve access between Cincinnati and Covington.
- Evaluate and reserve land for manufacturing purposes which has accessibility to the railroad systems.
- Garvey Road should be improved to better serve the industrial area of Elsmere.
- Place an increased emphasis on the improvement of state routes in Southern Kenton County.

CHAPTER IX
INFORMATION TECHNOLOGY
AND INFRASTRUCTURE



CHAPTER IX INFORMATION TECHNOLOGY AND INFRASTRUCTURE

GENERAL

The purpose of this chapter is to provide information and insight into the issues concerning the use and development of a significant new topic of importance for both Kenton County, the Northern Kentucky Area, and for other communities across the nation: the rapidly developing field of information technology and its accompanying infrastructure. The potential impact on communities is tremendous in scope, and it appears that much education and planning is necessary in order to be prepared to address these new issues. This chapter will present some basic background information about the most significant issues at present and will make recommendations for addressing them and other rapidly developing technologies both now and in the future.

A NEW INFRASTRUCTURE

Although many people initially regard new technologies as intimidating, impersonal and intrusive, there has been a great change in attitudes toward such common technologies such as "voice mail", electronic or "e-mail", facsimile ("FAX") machines, computers, answering machines, and other technologies when they are well-designed and easy to use. As cutting edge information technologies continue to be developed, they too will be regarded in the future as commonplace and essential, and will be expected by citizens.

The importance of making these tools convenient to use cannot be underestimated. It has been said that when the telephone was first introduced, the growth in its use was so explosive that a telephone industry executive predicted that everyone would have to become a telephone operator in order to handle the demand for service. That is, of course, exactly what happened. The technology developed to a level that was easy to use, permitting average citizens to make their own calls. The same will be true of the technologies under development today.

Information technology already plays a significant role in public safety, economic development, entertainment, work, communication, and education, and will continue to expand its presence in the public areas of the daily lives of our citizenry. But, the coincident increase in use of computers by average citizens from their homes, along with the enormous growth in the use of the "Internet" has fueled the engine of one of the most substantial infrastructure development periods in decades.

We must realize that we are witnessing the leading edge of a new infrastructure much like the railroads, the interstate highway system, and the water, sewer, telephone, and gas and electric utilities.

As Northern Kentucky looks toward the future and the fast approaching 21st Century, it is crucial that the community develop and have in place the knowledge and guidelines necessary for the process of planning for the expanding use of these technologies.

Recent federal and state legislation have already impacted the ability of local authorities to address these issues. The potential impact of ignoring these developments will be costly and will only further delay the necessity to plan for the future. The Comprehensive Plan Update is an appropriate avenue to address these issues and to develop recommendations for the future.

TWO GUIDING THEMES

During focus group meetings, two major themes repeatedly surfaced. These themes were:

- The desire for "Universal Access" to the various information technologies; and
- The linking of information technology and infrastructure to the four essential elements of the Comprehensive Plan:
 - Transportation
 - Community facilities
 - Utilities
 - Land use

UNIVERSAL ACCESS

The concept of "Universal Access" is defined as *"the ability of every citizen in the county to have access to information technology and infrastructure developments."* This does not necessarily mean a computer or Internet access in every home, but the ability for every citizen to have such access if so desired. This ability might be made available through facilities located in public libraries, city halls, schools, or kiosks in shopping malls. It could also be provided in the home through any number of service providers. Many people already take advantage of this capability through modems and telephone lines.

LINKING TO THE COMPREHENSIVE PLAN

Initially, the best way to incorporate these issues and concerns into the Comprehensive Plan Update is to begin by relating them to the plan's Goals and Objectives and the required elements of the Comprehensive Plan. The following paragraphs are meant to describe some potential benefits which could be realized through the implementation of information technologies.

Transportation - Information technology has the potential to alleviate dependency on vehicular trips to accomplish many tasks. For example, with a home computer one can now search for books at the Kenton County Public Library. In many cases it is now

possible to perform other tasks such as shopping and product ordering from home even without a home computer. Generally, this convenience has only been available from large mail order firms. However, with increased awareness and interest, these services could potentially be made available by local businesses. Home delivery of products ordered from local businesses such as groceries, drug stores, and hardware stores, once a common occurrence, is again being implemented in many areas of the country. Trends such as these have the potential to reduce short trips, with a corresponding benefit in air quality improvement.

"Telecommuting" can especially reduce commuting to and from work as people are increasingly able to work from their homes through the use of computers, modems and fax machines. The potential impact of increased telecommuting must also be examined in light of present and future zoning ordinances. Increased numbers of people working from their homes will raise questions and concerns about business activities in residential areas which were more clear cut in the past, but will require further examination and planning in the future.

The advent of "smart highway systems" such as **ARTIMIS**, the **A**dvanced **R**egional **T**raffic **I**nteractive **M**anagement and **I**nformation **S**ystem, now being implemented in the Cincinnati Metropolitan Area, is also a good example of the use of information technology in the area of transportation. This system will monitor traffic conditions on the region's major thoroughfares through the use of sensors installed in the roadways and remote control video cameras. When traffic delays or bottlenecks are detected, interactive road signs will display alert messages sent by operators to warn drivers of potential problems ahead and to suggest possible alternate routes.

These and other transportation related developments offer great promise and should be recognized, discussed, and encouraged where appropriate.

Community Facilities - Information technology can assist in providing access to information, materials and services typically found at city buildings, schools, libraries and other public agencies. The following examples for information technology and infrastructure related to community facilities should be examined:

- Electronic linking of community facilities such as schools, libraries, city and county buildings and other facilities holds potential for improving access to information by the public. This would include the availability of public information on-line where practical. For example, documents can be published electronically (as is being done with this update of the Comprehensive Plan) for reduced cost of distribution while also making the information more accessible.
- Potential improvements in public safety which could be realized by installing smoke, fire and burglary detection systems which could automatically link to emergency dispatch services when activated. Although such systems are not yet perfected, their availability and usability will improve in the future.
- New developments in information technologies and infrastructure will have an

impact on physical design and capacity of public facilities as well, perhaps affecting building and parking capacities as well as building code and design features. For example, new city/county/public office facilities being built should be designed to accommodate computer networking/video-conferencing networking capabilities in the design stage rather than as an afterthought.

The focus group also suggested that proximity to information technology access locations may become a factor in determining where people choose to live in the same way proximity to parks, schools, shopping, and churches plays a role now.

Sites for cellular phone towers, Personal Communication Services (PCS) equipment and other facilities could be evaluated through the use of Geographic Information Systems (GIS) technology. In particular, the concept of sharing facility sites among various cellular and PCS providers, where possible, has great potential for reducing the number of towers necessary to serve the area's communication needs.

Water/Sewer/Solid Waste - Technologies are now available which make it possible to read utility meters electronically and have the monthly readings sent to the utility headquarters. In some areas these systems are already in use. Utility service providers should be encouraged to examine such developments when installing new service capabilities.

If electronic meter reading is implemented, it may be feasible to implement other capabilities through the same system, or to install multiple systems so that if one fails, the other will back it up. With more immediate feedback of utility service usage, the utility service providers may be able to use this information to better design their systems to handle peak loads/capacities and better balance service demands. The feasibility of these suggestions is unknown at this time, but the potential benefits are significant, and the decision makers must become aware of the many new possibilities on the horizon.

Maintenance of facilities can be aided through the use of GIS and Automated Mapping/Facilities Management Systems (AM/FM.) Such systems are designed to store highly accurate base maps of a region and any related information about the maps in a computer database. These maps are separated into "layers" such as roads, buildings, property lines, and so on. In this way, it is possible to deal with a single layer or with multiple layers of information.

Utilities can also map their facilities as individual layers on top of the common "master base map" in order to organize and use their information in a method that is consistent with other uses. For example, when planning to repair a sewer line, a simple search could show the location of any water or gas lines which may be present. When repairing, replacing or maintaining existing facilities or installing new facilities, consideration should be given to these new capabilities. The NKAPC, the Kenton County Fiscal Court, the Kenton County Property Valuation Administrator (PVA), the Sanitation District of Northern Kentucky, and the Northern Kentucky Water Service District, have cooperated to develop such a system known as the *PlaNet GIS System*.

The use of GIS to help site facilities such as landfills, or to optimize school bus, public transit or solid waste pickup routes, must be more fully explored and encouraged. Use of this technology can provide a more tangible basis for decision making which otherwise can appear arbitrary if not properly explained.

Land Use - Identification of the best sites for recreational facilities, agricultural and/or preservation areas, and industrial parks should be done before land available for such uses becomes scarce. Again, GIS technology could be used in this effort by tracking land consumption over time and by use. Trends in development and demographics can also be more accurately tracked using GIS capabilities. The NKAPC in coordination with the Kenton County Property Valuation Administrator, has initiated such a system of tracking land development patterns, consumption of land, and use of land since the last Plan Update. In fact, the system has been use as part of this Plan Update.

SIGNIFICANT TRENDS AND EXAMPLES

Why then is it necessary to plan for something which in many cases is already available through existing facilities? The answer is, that while today's facilities are generally adequate for the uses being made of them, the increasing growth in the use of these technologies and the demand for faster and more reliable capabilities will increase dramatically in the coming years. Listed below are some examples of the services and capabilities which will be dependent on developments in the information technology field:

Economic Development - Businesses will demand greater access to an information infrastructure which is flexible and capable of handling their diverse needs. This is especially true when firms are looking to expand their operations. Communities which are not prepared to accommodate such needs may be passed over in the process.

Electronic Commerce - Closely related to economic development issues, electronic commerce deals with the exchange of purchase orders, invoices, and payments using an electronic standard. Another concept being developed - electronic, or "e-cash" - will permit the purchase of goods and services electronically without the tracking of purchases for marketing purposes, by associating sales records to a person's bank or credit card account. This capability will help address privacy issues.

News Media - News organizations will take advantage of the capabilities in reporting news as it happens and as a means of distribution. Already several major news organizations and newspapers, including *The Cincinnati Post* and *The Cincinnati Enquirer*, have begun to explore this new electronic publishing frontier.

Education - Schools are teaching our children how to use these technologies. As the workers of the future, they will expect these capabilities to be available. Distance learning via video-conferencing/interactive television, as well as career training and other educational offerings, will be offered through current and developing

technologies. Those not prepared risk being left behind as the information revolution juggernaut proceeds.

Medical - The medical professions already rely heavily on available information technologies and will increasingly require reliable, fast, and accurate exchange of information. Video-conferencing capabilities, in particular, hold great promise in extending the reach of the latest advances in health care from research hospitals to remote locations.

Telecommuting - Working from remote locations or from home will become more commonplace resulting in increasing demands for adequate information technology infrastructure. Banking, shopping, paying bills, submitting tax returns, performing research and using e-mail are among many of the activities and services which will be feasible. Many of these have the potential to reduce short trips and save considerable time.

Government Organizations - Government agencies can take advantage of many capabilities to improve the delivery of services to the public. Publication and distribution of public records in electronic format, where practical, can help make information more accessible to the general public. "One-Stop Kiosks" can be designed to handle applications for permits and/or other necessary paperwork rather than forcing the citizen to visit several different locations.

Emergency Services - The Global Positioning System (GPS) is a system of satellites and equipment designed by the U. S. Department of Defense to permit personnel to determine their location anywhere on the face of the earth, 24 hours a day. In combination with GIS capabilities, emergency dispatchers can take advantage of GPS technology to more effectively dispatch police, fire, and ambulances to call locations. Emergency vehicles equipped with appropriate equipment can broadcast their locations to the central dispatching office every few seconds. In this way, they can be tracked in real time should further assistance or backup be required.

Another area which should be examined for its potential in emergency situations is the 800 megahertz radio system. This system is designed to permit either addressable communication from one station to another, or when necessary, to permit communication within or among groups of radios. In this way, emergency service providers could communicate individually and within their own organization under normal conditions, or in the case of a natural disaster or other emergency situation, could easily switch to a cooperative mode for coordinated response.

Kentucky Information Highway - The "Kentucky Information Highway" is a statewide initiative to make the latest advances in information technologies available to all public agencies in the state at a uniform rate. Many of the examples listed above are part of this initiative. The goals and objectives of the "Kentucky Information Highway" initiative should be examined for a greater understanding of its potential benefits to local government organizations.

Kentucky Statewide Base Map - The "Kentucky Statewide Base Map" is an initiative of Kentucky's "GIS Advisory Council", in cooperation with the United States Geological Survey (USGS), the Natural Resources Conservation Service (NRCS) - formerly the Soil Conservation Service - and the U. S. Forest Service (USFS), to map the entire commonwealth at a uniform scale for the purpose of making up-to-date mapping available for use by all state and local government agencies. This mapping will be sufficiently accurate to be used as a base for property mapping in all but the most urbanized areas of the state. The potential benefit of such a product to the state in the areas of economic development, transportation, tourism, environmental and natural resources, and conservation efforts is tremendous.

GUIDING THEME SUMMARY

Although incomplete, this list gives some idea of the scope and significance of the developments in the information technology arena. Since this is the first time these issues have been addressed in the Comprehensive Plan Update, by necessity the fundamental and most immediately applicable issues may take precedence over less obvious applications. However, it is important to recognize and acknowledge the dynamic nature of the field of information technology. One only has to examine the decisions, both good and bad, made by some communities during the eras of railroad and interstate highway system expansion and development, to understand the potential impact.

DECISION MAKING

The use and development of information technology and its accompanying infrastructure is inevitable, and is therefore something for which planning is required, for both the potential uses and for orderly and coordinated development.

It is critically important that citizens not be divided into the technology *"haves and have-nots."* Accordingly, as infrastructure developments occur, care must be exercised to ensure that providers are not allowed to "cherry pick" the areas which they will or will not serve. Decision-makers must not inadvertently create situations which prevent citizens from having the ability to take advantage of these developments. In other words, Universal Access needs to be a guiding principle in decision-making.

The focus group agreed on long-range and short-range goals, and on requiring that information infrastructure developments be compatible with existing facilities already in place in the county, for example: by having standardized equipment that could be used with various types of hardware.

RECOMMENDATIONS

Community Plan - A unified county/region-wide plan needs to be developed for information technology.

Aggressive development of information technology infrastructure is taking place due to consumer demand and also due to changes brought about by the *Federal Communications Act of 1996*. Accordingly, a comprehensive, unified countywide/regional plan must be developed and implemented to address the needs and concerns of all jurisdictions and to prevent a fractious, piecemeal approach which could adversely affect the continued orderly development of the region.

A long-range goal should be to be able to offer everyone in Kenton County the ability to have individual residential access to information technology and infrastructure if desired. A short-term goal should be to first make services available at local libraries, shopping malls, or other public places.

Education - Continuous efforts should be made to inform decision-makers and the general public about present and future information technology developments in a timely fashion.

Decision makers must be well informed in order to make intelligent decisions. Training programs, on-going education, and public awareness programs will all contribute to the goal of making people aware of developments and their potential impacts. Since information technology developments are unfolding so rapidly, it is imperative that these educational efforts be sustained and continually offered in order to provide the most up-to-date information.

Cellular Towers, PCS Facilities and Satellite Dishes - Siting of cellular phone towers, Personal Communications System (PCS) facilities and satellite dishes should be subject to local review and approval.

The *Federal Communications Act of 1996* has severely restricted, to the point of preempting local control, the ability of local authorities to control satellite dish placement for aesthetic reasons. Local authorities have no control over satellite dishes 1 meter (3.28 feet) or less in diameter in residential areas and 2 meters (6.56 feet) or less in commercial areas.

Under current state statutes, cellular towers and their facilities are subject to local review and control only when located in Jefferson County, KY. Presumably this will also be the case with the new PCS facilities which will require much higher densities to provide for adequate coverage. Local review and control authority should be extended statewide.

Infrastructure within the public right-of-way is still subject to local control. However, under current state and federal restrictions regarding cellular, PCS and satellite dish technologies, it is a simple matter to bypass local review and control as none of these technologies are restricted by right-of-way access. Legislative initiatives in this area should be examined and considered.

Sites for cellular phone towers, Personal Communication Services (PCS), satellite dishes, and other similar technologies which may be developed, should be examined

and evaluated through technologies such as GIS and computer imaging. GIS can be used to locate optimal sites for facilities while computer imaging permits creation of visual models of proposed facilities. Service providers themselves use these technologies when making presentations before boards and commissions in areas of the country having local review and control authority.

Service providers should be required, where feasible, to share towers and site facilities in order to minimize their proliferation. Aesthetic issues are prominent and will need to be addressed at the local level. It will be important also, as new technologies make such towers or other facilities unnecessary to assure their removal and disposal.

The following is a list of criteria that is recommended to be used when evaluating siting of such facilities:

- Cellular Phone Service Providers should be required to co-locate or share tower/facilities with other providers in order to minimize the proliferation of towers/facilities.
- Wherever possible, service providers should be required to use existing structures or facilities which meet all of the requirements of the proposed installation. For example, water towers, radio and television towers, tall buildings, commercial signs, church steeples, etc., in order to minimize the proliferation of new towers/facilities.
- Wherever possible, siting of such facilities should be required to be located in areas identified for industrial or commercial type uses.
- When located in residential areas, such facilities should be heavily screened from view and towers should be camouflaged or designed in such a manner to blend into the surrounding area. Changes in topography of the land can be used effectively to separate such facilities from adjacent residential uses.
- To provide for proper separation, adequate setbacks should be provided based upon adjacent land uses.
- The type of tower (e.g., monopole, carillon, etc.) should be evaluated based upon adjacent land uses and character of affected areas.
- When the facility is no longer required, it should be removed by the owner and the land restored to its natural state.

[Map 9A](#) shows the location of existing telecommunication towers and new tower locations which have been submitted for recent regulation by the NKAPC.

Employment and Economic Development - In order to provide for a stable and diversified employment capability (Employment Goals and Objectives), appropriate

information technology infrastructure requirements must be described, understood and encouraged.

Information technology will play an increasingly important role in employment and economic development. Decision makers must recognize and examine the long term impacts (both good and bad) of decisions made in this area regarding the information technology infrastructure requirements of future employers, as well as new job skills and educational requirements for the workers of the future. These needs must be clearly described, understood, and encouraged where appropriate.

Zoning Issues - The potential impact of increased telecommuting on transportation and land use should be examined in light of present and future zoning ordinances and requirements.

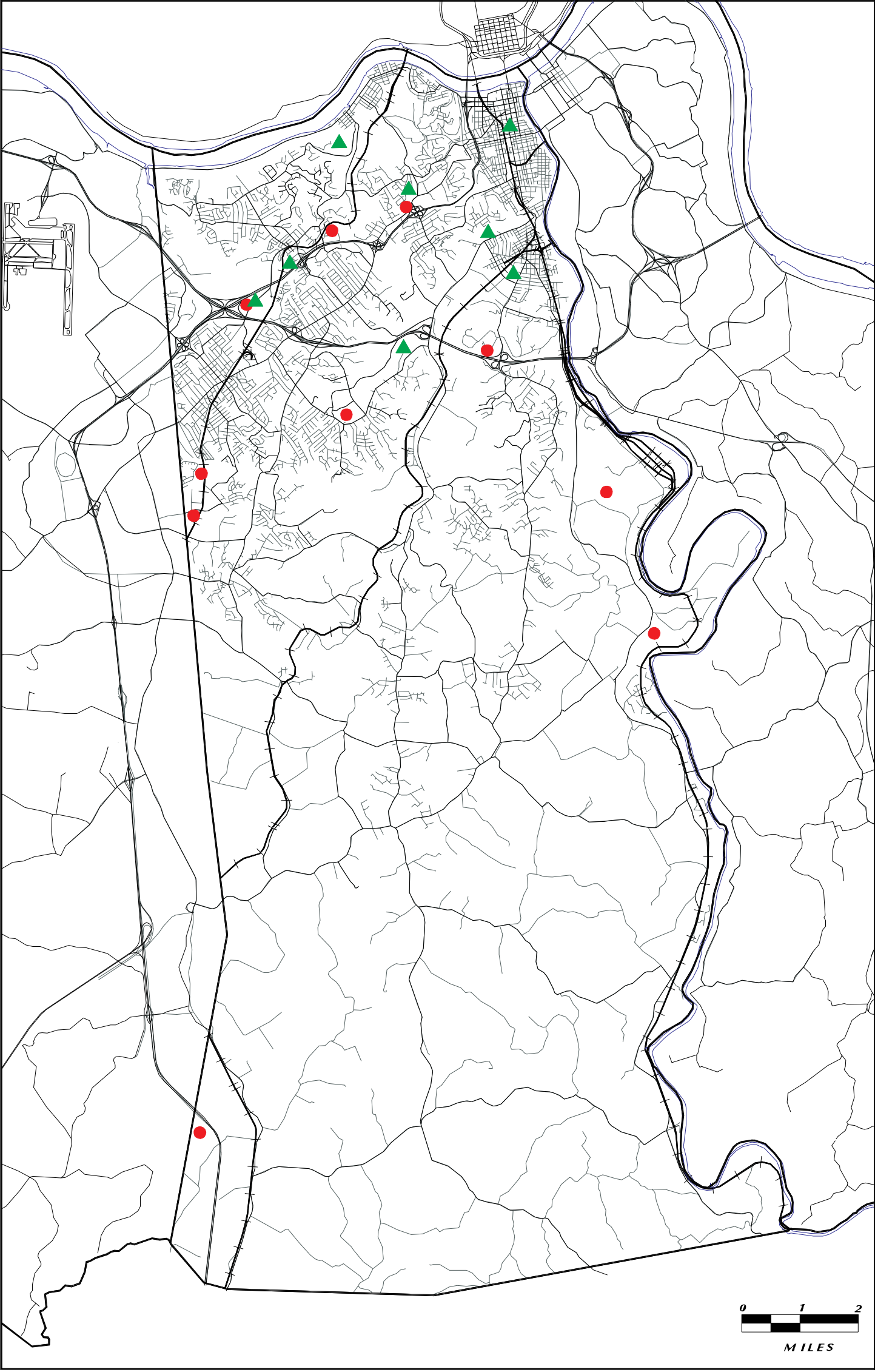
With its ability to alleviate dependency on vehicular trips to accomplish many tasks, information technologies will permit many people to work out of their homes, resulting in potential zoning and/or business permit issues. These issues must be examined.

Future Facilities - Construction of future facilities should be examined in light of capacity, technology, and other information technology needs.

Information technologies will impact the design, construction, and wiring of future facilities, both public and private. Decision makers must examine these issues, in terms of new technology developments, capacity, and expansion when designing and building new schools, libraries, city buildings or any other public buildings. Right-of-way issues in subdivision development need to be examined in light of emerging technologies and public expectations for the use and delivery of information services. Libraries, schools, and other public buildings need to have a flexible design in order to accommodate future developments as simply as possible. Electronic linking of community facilities can improve access by the public.

It is important to recognize that simply installing equipment or computerizing information which currently exists in paper form is not the end in itself. Taking advantage of improved capabilities in the delivery of the information through reductions in cost, improved availability and timeliness, and better decision-making is the ultimate goal.

Examination of and Improved use of Information Technologies - Public and semi-public organizations or agencies should examine their current use of information technologies in the provision of services to the public and strive to improve such use where appropriate.



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MILES

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The information presented in this product is accurate for planning purposes only.

MAP
9A

1996 COMPREHENSIVE PLAN KENTON COUNTY, KENTUCKY

WIRELESS TELECOMMUNICATIONS FACILITY LOCATIONS

- Existing Facility
- Proposed Facility
(Submitted to NKAPC for review.)

PREPARED BY
NORTHERN KENTUCKY AREA PLANNING COMMISSION

Increasing numbers of our citizenry are becoming familiar with the use of computers and on-line systems. Information of a public nature should be made available, where practical, in a format which is increasingly being expected by the public. Care must be taken however, that in so doing, traditional access methods are not inadvertently denied to those without the latest technology. This can be achieved through the use of "Public Access Stations", information kiosks, or on-line sites such as a "home page" on the Internet's "World Wide Web". Here, citizens can get the latest information about public hearings, meeting agendas, minutes of previous meetings, maps of city zoning districts or a multitude of other kinds of information in one, central location. Citizens could also use e-mail to deliver their comments on issues to city council members, mayors, or other officials.

Community Reference Base Station and Monumentation - In order to maintain accurate and reliable land records in the future, a Global Positioning System (GPS) community reference base station and a program of land monumentation should be established with a goal of ensuring that all new properties can be referenced to a known monument within one-half mile of the property.

As development continues to take place, it will be important that accurate records of property boundaries be maintained by use of the improved methods, technologies and equipment available to surveyors today. By using GPS capabilities and a system of established monumentation, references will be simpler to track and recreate in the future. A Community Base Station and monumentation will also prove useful in future map updating and as a reference for other uses.

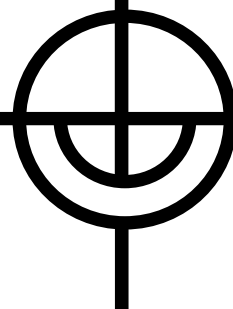
Automation of Land Records - Submissions of land records such as final plats, improvement drawings, and record copies of drawings (as-built drawings) should be made in a prescribed and uniform digital format, wherever possible, for purposes of improved record keeping and reduced errors.

Although simple "ID plats" or "plats of convenience" are submitted in a manually drawn format, most major subdivision plats are now created on computers in a "Computer Aided Drafting" or "CAD" format and submitted as a computer drawing on mylar film. Since the original work is already in a computer format, it makes sense that the submission should be submitted, where feasible, in such format for improved record-keeping and reduction in the chance for error when entered into the Property Valuation Administrator's (PVA) Land Records System.

Implementation - A county-wide information technology plan should be prepared and should include all local jurisdictions and a steering committee of local representatives and professionals with knowledge of this technology.

CHAPTER X

IMPLEMENTATION



CHAPTER X IMPLEMENTATION

GENERAL

This chapter describes various implementation measures that may be used to accomplish the goals, objectives, and specific recommendations described in this plan. With completion of this Plan Update, a necessary continuing step in the planning process has been accomplished. "Implementation", however, is likely the most important and never-ending step in this process. Both the public and private sector have a role in the implementation of this plan. The public sector will assist in guiding development by reasonable and prudent application of various land regulatory measures, and through financing of public works projects. Private sector businesses and individuals will plan and complete land development projects. Basic regulatory measures, available for use in Kentucky, are briefly described as follows. It is important to note, however, that before any local regulatory measures can be adopted, the Comprehensive Plan Adoption by the Planning Commission is the very first step in the process.

ZONING REGULATIONS

Kentucky state legislation permits the legislative bodies of cities and counties to adopt zoning regulations which may be used to divide the territory within their jurisdiction into zones, so as to promote public health, safety, morals, and general welfare of the area of jurisdiction, to facilitate orderly and harmonious development and visual or historical character of the area, and to regulate the density of population and intensity of land use in order to provide for adequate light and air. In addition, zoning may be employed to provide for vehicular parking and loading space, as well as to facilitate fire and police protection and to prevent the overcrowding of land, blight, danger, and congestion in the circulation of people and commodities and the loss of life, health, or property from fire, flood, and other dangers. Zoning may also be employed to protect airports, highways, and other transportation facilities, public facilities, including schools and public grounds, historical districts, central business districts, prime agricultural land, natural resources, the use of sludge from water and waste water treatment facilities in projects to improve soil quality, and other specific areas in the area of jurisdiction which need special protection.

SUBDIVISION REGULATIONS

Kentucky state legislation permits local planning commissions to prepare and adopt regulations for the subdivision of land within its boundaries after all elements of the Comprehensive Plan have been adopted by the commission. This legislation requires that, if such regulations are adopted, all subdivision of land must (mandatory) receive planning commission approval before subdivision plats may be recorded at the county level. It further states that any street or public ground which has been dedicated shall not be accepted by the legislative body until it has received final plat approval by the

planning commission. Additionally, any street that has been built in accordance with specific standards set forth in the subdivision regulations shall be automatically accepted by a legislative body forty-five (45) days after inspection and final approval.

In general, the purpose of subdivision regulations is to guide and regulate the planning, subdividing, and orderly development of land; in the process, ensuring convenient vehicular and pedestrian circulation, adequate access for fire and police protection services, adequate and economical provision of utilities and other public services, ample public open spaces for school and park purposes, and general coordination of land development, in accordance with the Comprehensive Plan and the locally adopted zoning ordinance.

CAPITAL IMPROVEMENTS PROGRAM

A capital improvements program may be developed only after completion and adoption of the Comprehensive Plan. Such a program is an effort to identify, from a detailed review of the recommendations included in the Comprehensive Plan, public improvement priorities, and then to schedule these priorities on the basis of the responsible local government's financial ability to accomplish them. Such a program is usually short-term in nature -- normally a five or six year program, with the first year being incorporated in the current year operating budget.

More specifically, a capital improvements program is either preceded by, or includes, a complete review of the financial condition of the responsible local government for a number of past years, so that a complete understanding of those financial operations is available prior to the time any recommendations for future expenditures are made. Such a review normally includes an examination of budgetary procedures, accounting system, current indebtedness condition, sources of revenue, expenditures, and all of the factors which may have some bearing on future financial operations.

After completion of this detailed financial analysis, projections of budgets for future years are made. This step necessitates extremely close cooperation and understanding with the responsible local government's public officials and those persons delegated to carry out day-to-day financial operations of the community or agency in question. Detailed review of the recommendations set forth in the Comprehensive Plan allows development of a set of priorities, identifying which public improvements will be necessary in the early years of the plan's long-range program. Cost estimates for each of these priority items are then made, and a schedule of capital improvements projects is developed.

The program further recommends appropriate sources of funds to finance such improvements as they are required (e.g., current revenues, special funds, bond issues, etc.). Effort is then directed toward coordinating scheduled capital improvements projects with the area's ability to finance such improvements over the period covered by the capital improvements program.

A well designed capital improvements program is kept current by reevaluating each year, the priorities assigned to each project, and by adding another year to the end of the program. Each time, the first year is incorporated into the current operating budget. Preparation of a capital improvements program is a most important component in any comprehensive planning process.

OFFICIAL MAP REGULATION

When all required components of the Comprehensive Plan and a capital improvements program have been prepared and adopted, the local planning commission and legislative bodies have authority to prepare and adopt an official map regulation. This regulation incorporates a map of the entire area of jurisdiction and may show, without being limited to, the location and extent of existing and proposed public streets, including rights-of-way, water courses, parks and playgrounds, public schools and building sites, and public facilities needs.

State statutes require that, prior to the adoption or amendment of the official map regulation, the local planning commission must review the official map or changes to it in light of the adopted Comprehensive Plan, hold a public hearing on the map, or proposed changes, and recommend its approval or disapproval to the legislative bodies and/or fiscal court, whichever is applicable.

After passage of the official map regulation for all or part of the city or county in question, all streets, water courses, parks and playgrounds, public buildings, public school sites, or other public facilities which have been approved under subdivision regulations, as provided for in the Kentucky Revised Statutes, shall be posted to the official map. No public hearing needs to be held for such additions to the official map.

Kentucky Revised Statutes further note that the passage of the official map regulation shall not be deemed as the opening or establishing of any street, or as a taking, or as an acceptance of any land for a street, water course, or public grounds; nor shall it obligate the city or county to improve or maintain any such street or facility.

State statutes also note that, for the purpose of preserving the integrity of the official map regulation of the city or county, no permit shall be issued for the construction or material alteration of any building within the lines of any street, including rights-of-way, water courses, parks and playgrounds, public schools, or other public building sites, shown on the official map. The official map of a city may include an area outside the city limits over which the approval of subdivision plats is required. State statutes note that any person desiring to construct, or materially alter a building in the lines of any proposed facility shown on the official map shall apply to the administrative official of the city or county for a building permit. Unless such application is made and the permit is granted, no person shall recover any damages for the taking for public use of any structure or improvement structured within the lines shown on the map, and any such structure or improvement shall be removed at the expense of the owner when the land is acquired for public use.

Statutes also indicate that, if the land shown on the official map is not yielding a fair return, the board of adjustment shall have the power to grant a permit for the building which will, as little as practicable, increase the cost of future acquisition, and the board may impose reasonable requirements as a condition for granting such permits. Such a permit shall not be granted when the applicant will not be substantially damaged by placing his building outside the boundary lines of the proposed facility.

The official map regulation is another land regulatory tool permissible in the state of Kentucky, which has not been used to date in Northern Kentucky. It appears to be a valuable tool for local government to use in planning for the acquisition and development of land for public purposes. Its obvious intent is to assure that the cost of such lands, if they can be reasonably anticipated to be acquired and coordinated with the five - year capital improvements program, will not significantly escalate, so that the end result will not be much higher costs to the public for purchase and development of such properties. The regulation is written in a fashion which attempts to insure fairness to property owners in question, while assuring that the entire tax paying public will benefit from such long-range financial planning coordinated with long-range physical planning.

BUILDING CODES

A building code establishes standards for design, construction, alteration, repair, equipment, use and occupancy, maintenance, removal, and demolition of every building, structure, or appurtenance connected or attached to such buildings or structures. This type of code also establishes procedures for amendments and appeals to the code and provides for its administration and enforcement.

In 1980, the state of Kentucky enacted a state-wide building code: the Kentucky Building Code. Prior to that time, each individual community could select whichever national building code it wished to use, or it could develop its own building code. In an effort to assure uniformity of application of building regulations, the state of Kentucky adopted the Kentucky Building Code. That same state law, however, requires that local governments must enforce that building code with building officials qualified by an examination administered by the Building Officials and Code Administrators International, Inc. (BOCA), a national professional association for construction code officials.

The Northern Kentucky Area Planning Commission presently maintains a staff of qualified building officials, which it offers for use by local governments, in an advisory capacity. Presently, in Northern Kentucky, many local governments have employed their own building officials who enforce the Kentucky Building Code within the individual city and/or county jurisdiction. Other local governments have chosen to contract with the Northern Kentucky Area Planning Commission to have the NKAPC staff provide professional assistance, in an advisory capacity, to the local building officials.

HOUSING CODES

A housing code establishes minimum standards necessary to make dwellings fit for human habitation by regulating the size of rooms, light, ventilation, heating, and the number of persons permitted per room, the types of sanitary facilities required for all dwellings, and establishing conditions which constitute hazards, which, if found to exist, warrant the building unsafe for human habitation. The code also provides for amendments and appeals, and establishes procedures for administration and enforcement of its regulations.

ADDITIONAL IMPLEMENTATION MEASURES

- **Federal, State and Local Funding:** One of the most basic implementation measures is the funding of public works projects. Regardless of the source, the search for project funding is a constant activity conducted by local jurisdictions in Kenton County. Federal assistance programs have contributed significantly to achieving many of the objectives and specific plans prepared and adopted by local governments in Northern Kentucky. Funding for various urban renewal/community development/rehabilitation/conservation type efforts have been applied for and received by Northern Kentucky governments, resulting in elimination of blighted conditions and construction of new development in conformity with long-range comprehensive planning. Examples of some federally funded programs being used in Northern Kentucky are:
 - U.S. Department of Housing and Urban Development Block Grants
 - Intermodal Surface Transportation Efficiency Act (ISTEA)
 - The Urban Forestry Program
 - EPA and Farmers Home Administration water and sewer extension programs
 - Various Farm Assistance Programs and Social/Human Assistance Programs

In addition to direct funding, other incentives are available, such as the Investment Tax Credits for Historic Preservation projects, which help many historic building renovations to become feasible projects.

State and local funding (e.g., capital improvement programming) of projects is also common. Many federal and state programs require matching local funds or provide low interest loans. These programs provide local jurisdictions with the opportunity to extend scarce financial resources much further to accomplish large and expensive projects.

- **Utility Extensions:** A method which can, and has been used, to some degree, to guide and regulate development, is an area's ability to extend (or conversely, not to extend) utilities into areas which are primarily undeveloped. Existence of utility systems in any area enhances the potential for additional development of all types, without requiring costly private utility extensions.

Conversely, unbridled utility extension can encourage new development, which requires the paralleling provision of a higher level of all other public services (e.g., police and fire protection, schools, parks, street lighting, street maintenance, solid waste collection, library services, etc.). If not developed in line with a predetermined plan of action, such utility extensions will out-run the area's ability to finance and provide these other necessary public services, and the entire base of taxpayers will be required to support a very expensive and over-extended system of public facilities serving a small and scattered population. A prudent use of such tax monies, for example, would be to rehabilitate the infrastructure/public services in the northern and intensely developed areas of Northern Kentucky -- a highly developed and populated area.

This method of guiding and regulating development permits applicable governmental organizations to play a major role in coordinating and controlling the timing, direction, and intensity of development in a manner which appears to be most efficient, desirable, and in conformance with predetermined comprehensive planning. It can also assist in eliminating the uncontrolled, scattered, and sprawl type development which is so costly to serve. Simultaneously, a well planned and programmed system of utility extensions, while permitting development in designated areas at a pace desired by public officials, also permits private developers to recognize the aims and objectives of local government. Private interest decisions, thus, can be guided by these same objectives.

In an area such as Northern Kentucky, where provision of water supply is not readily available from underground sources, and where soil conditions are generally prohibitive for intensive use of on-site disposal systems, such controlled extension of utility systems can be an important method of development control.

- **Geographic Information System Technology:** During the latter part of the 1980's, the NKAPC initiated a major new "state of the art" program for Northern Kentucky. This effort, a Geographic Information System (GIS), provides the NKAPC and all local governments in Kenton County and beyond, with an entirely new approach in the area of planning and implementation, and in many other areas of interest. This program, known as the *PlaNet GIS System*, is a partnership between the NKAPC, the Sanitation District No. 1, the Kenton County Fiscal Court, the Kenton County Property Valuation Administrator, and the Northern Kentucky Area Water Service District.

Noted previously, this system provides many capabilities through maintenance of a robust spatial database and related attribute information. Various spatial data information is available for all of Kenton County in the form of map "layers" including roads and parking lots, buildings, drainage (lakes, ponds, streams and rivers), city boundaries and zoning district boundaries, property lines, sewer lines, soils information, elevation contour lines, voting precincts, and

many other types of information. Basically, any information which can be depicted on a map can be entered into the GIS.

Many other types of information will be added to the database and the commission will be purchasing the necessary hardware and software to perform various types of analyses including road networking, address matching, three dimensional terrain analysis, etc. All of this information is intended to be made available to both the public and private sector, so that the best possible use can be made of the most current graphic and non-graphic information.

Various types of modeling are available to assist service agencies and organizations as they evaluate the need for new facilities, the most expeditious routing of school and transit buses, emergency vehicles, solid waste/recycling vehicles, etc. Capacity analysis and modeling of various types of utility systems as well as roadways, are also possible.

A Public Access station is available at the planning commission's offices, enabling a citizen, with minimal instruction and effort, to find information about any property in the county and to print a map of any property and its accompanying information, if so desired. Some ideas for the future include making such information available in an on-line format through the Internet's World Wide Web.

- **Model Zoning Ordinance:** The NKAPC has just completed an update of its recommended Model Zoning Ordinance for use by each of the legislative bodies in Kenton County. This model includes some of the more recent and innovative land use management techniques being used nationwide. It also includes information obtained from the Hillside Trust Study which provides recommended guidelines dealing with development in hillside areas. With completion of this Comprehensive Plan Update, the NKAPC will begin discussion of the Model Zoning Ordinance with the local planning commissions, and after approval, will start assisting each legislative body in Kenton County to adopt this recommended model zoning ordinance, applicable to their area of jurisdiction, including the need to update their ordinances to reflect any changes resulting from recommendations contained in this Comprehensive Plan Update. As identified later in this Chapter, there will be a need to develop specific regulations that will pertain to the southern part of Kenton County, particularly to maintaining the low-density/rural character of this area, and to the fact that this area will not be requiring the full range of urban services during the planning period.

SPECIFIC IMPLEMENTATION RECOMMENDATIONS

The following sections describe implementation measures for recommendations made in this Plan Update. These measures provide potential "plans of action" for recommendations and are intended to comprise the next logical steps in the planning process.

CITIZEN PARTICIPATION

Throughout the process to prepare this Plan Update, the NKAPC/KC&MP&ZC sought and received citizen input, beginning with the "Town Meeting" held in August of 1995, to kick off this Plan Update. Next, citizens and experts from various backgrounds met in Focus Groups to provide assistance to the NKAPC staff and the NKAPC/KC&MP&ZC Joint Task Force. In an effort to increase public awareness of this Plan Update, the NKAPC used its GIS capabilities to notify all property owners of proposed changes in the plan that would change the use of their property. Further, these property owners were provided a number to contact the NKAPC for any questions they may have or they could attend any one of three public meetings to discuss specific details concerning their property. At the end of the update process, three additional public meetings and a final public hearing were held to receive public comment on the draft Plan Update. Citizen input proved to be very valuable in this process, and such input should be encouraged on a continuing basis.

Experience and information gained from the Plan Update process indicates that if citizens are encouraged to participate, good input can create a better understanding of the needs of the area. Several Focus Groups mentioned during the Plan Update the need for more organized citizen groups. This plan update, therefore, strongly encourages all local legislative bodies to actively seek citizen input. Furthermore, citizens should be encouraged, by local legislative bodies, to create more formal organizations to assist in becoming more active in their local governments. In Kenton County, several examples of such citizen organizations exist, such as the many organized and effective citizen/neighborhood associations within the city of Covington, the Kenton County Transportation Task Force, the Doe Run Recreation study group, etc.

FUTURE PLANNING PROJECTS/TOOLS

Strategic Planning

Strategic planning to address more specific needs of local jurisdictions was identified as a need during this Plan Update. Strategic planning is more "action oriented" than comprehensive planning, focusing on a limited set of issues to clarify future directions, establish priorities, and recommend specific implementation steps. Such planning is intended to provide a coherent and defensible basis for decision making. Oftentimes, this is accomplished via step-by-step procedures and budgeting.

The NKAPC staff is available to assist local jurisdictions with any such planning efforts. Since the 1991 Plan Update, the NKAPC staff has assisted the cities of Fort Wright (Madison Pike Corridor, Kyles Lane to I-275) and Edgewood (Thomas More Parkway/Horsebranch Road commercial area) with such strategic planning efforts.

Urban Design Plans

Urban design plans and guidelines, similar to strategic plans, can assist in coordinating specific design features in the built environment with the natural environment. The intent of urban design plans and guidelines are to increase the compatibility of proposed building and construction to natural surroundings, with the objective of creating a more inviting and functional living environment. For example, an issue raised by the Riverfront and Urban Area Focus Group was the need to increase the daytime and night time ambience of the riverfront area. Urban design plans and guidelines initiated by the public sector, with full cooperation of the private sector, can provide the framework of coordination and cooperation necessary to create such an environment, using both public and private land and capital. Urban design guidelines also need to make provisions to better accommodate the planned mixed land use developments within the riverfront and urban area. For example, such building designs should promote a mixture of housing, employment, entertainment, and other uses all located in one grouping, thus accomplishing the goal of reduced travel and preserving use of our energy. Most importantly, biodiversity concerns will be addressed in relationship to waterfront developments.

South Kenton County Transportation Study

Increased residential development in the non-urban service area and in adjoining counties has created a need to further review traffic flow along major roads serving South Kenton County. Such a study would identify potential roadway improvements within the area. The primary roads that should be included in this study are: Kentucky State Route 17, south of the city of Independence to Pendleton County; Kentucky State Route 177, from I-275/Covington city limits area to Pendleton County; U.S. 25 from the city of Walton to Grant County; Kentucky State Route 14, from Piner to U.S. 25; and Kentucky State Route 16, from the Cherokee Shopping Center area to Boone County.

Commercial land uses located within this study area also need to be evaluated. It is logical that this be done simultaneously with the traffic study. Inventory and analysis of current commercial activities and projections of future needs should be the primary focus of this study element. There are numerous commercial uses within the area that have been identified on previous Plan Updates as “Agricultural and Rural Uses”, and which are not recommended to remain as commercial uses. Most of these uses are non-conforming uses according to local zoning ordinances. Many uses, or commercial structures/activities, have been continuously used for many years. Determination should be made as to whether any such areas may be needed to accommodate future residential growth and/or if such existing activity warrants identification of this area for commercial type land use and should therefore be recommended to be zoned accordingly.

Information Technology and Infrastructure

This Plan Update deals with information technology issues for the first time. The pace of innovations and new uses for these technologies are such that a comprehensive

plan cannot ignore the potential impacts on future community growth and development. In order to prepare for the inevitable changes in this area, a county/area-wide information technology plan must be prepared. Such a plan should include all local jurisdictions and should involve a steering committee of local representatives and professionals with knowledge of the various information technologies and their accompanying infrastructures.

First efforts should include the establishment of educational efforts, with the goal of informing officials, the general public and, importantly, our children and young adults about current and future technologies and their potential impacts. Such efforts must be of a continual nature since, at least for the near future, the changes in technology show no signs of slowing down.

Specific recommendations regarding siting and sharing of cellular phone towers, PCS facilities, and satellite dishes must also be addressed as they are quite prominent and will become more common. Legislative initiatives to enable local review and control over such facilities should be pursued.

Bikeway/Pedestrian Plan

One purpose of the Intermodal Surface Transportation Efficiency Act (ISTEA), was to place emphasis on alternate modes of transportation. Currently, much planning under the initiatives of ISTEA is being accomplished on the regional and state level. The OKI Regional Council of Governments is responsible under this Act for transportation planning within the region and the Northern Kentucky area. Bicycle and pedestrian transportation planning is one area included under ISTEA, that can best be accomplished within a more localized area. In 1993, OKI completed the OKI Regional Bicycle Plan, which includes the Northern Kentucky area. This plan, however, is very general in nature and should be expanded in scope and detail to further outline specific bikeway improvements in the Northern Kentucky/Kenton County area.

Improved walkway/pedestrian access has also become more important under ISTEA. Funding from the ISTEA program has been awarded to several cities in Northern Kentucky for pedestrian walkways. Lack of sidewalks in residential areas was discussed by the Transportation Focus Group as a concern that needed attention. For example, one need was to connect dead-end streets within subdivisions, via walkways, to encourage residents to walk to needed community services, etc. Furthermore, with improved pedestrian walkways, access to mass transit could be greatly expanded.

A Bikeway/Pedestrian Walkway Plan would designate and prioritize specific improvements and outline criteria for new developing areas. Specific improvements would be coordinated between jurisdictions to insure that longer networks were constructed/interconnected. These plans would help insure that bicycle and pedestrian facilities are included in roadway planning and construction, particularly in connection with state projects.

Rural Development Guidelines/Regulations

Information in Chapter V, Land Use, describes issues regarding non-urban or rural development. Preparation of new methods to regulate and manage residential development in rural or Southern Kenton County is a critical implementation measure recommended in this Plan Update. New and innovative techniques for rural land development design, sewerage disposal, maintaining open space/agricultural uses, water conservation and for other infrastructure needs are being used or considered to address these types of issues in Kentucky and in other parts of the country.

Preparation of such guidelines and regulations will involve participation by many organizations and individuals such as: the Northern Kentucky Area Planning Commission; the Kenton County and Municipal Planning and Zoning Commission; Kenton County Fiscal Court; state legislators; various other state, local and federal regulatory agencies (e.g. Health Department, Natural Resources Conservation Service, Kentucky Division of Water, Agricultural Extension Service); and residents and other interested persons within the area. This Plan Update recommends that representatives from these groups be appointed by the NKAPC/KC&MP&ZC, and convene following adoption of the Plan Update, to begin studying new guidelines and preparing recommendations for consideration for adoption by the planning commission and local legislative bodies. The NKAPC will provide the necessary resources to assist the study group with this effort, including recommendations already being developed.

Recreation and Open Space

Provision of additional land area and facilities for recreation and open space, as described in Chapter VI, was the top ranked issue identified at the “Town Meeting” held to kick off this Plan Update. Chapter VI evaluates the needs for recreational land uses based on accepted standards, and allocates acreage needs by general location. The attainment of additional public land for recreation use is the most difficult obstacle to address regarding this issue. Because of the nature of development in Kenton County, where several cities have only minimal vacant land available and where development is occurring at a rather rapid pace, it is essential that proactive efforts begin immediately to acquire land for this purpose. Actual park development may be secondary to securing needed land area. Lack of undeveloped land in some cities, the total overall costs likely necessary to meet projected needs, the number of local governments involved, and the fact that any public park will likely be available for use by any resident of Kenton County and the region, lead to the conclusion that this issue can best be addressed by at least a county-wide recreation board. This Plan Update recommends that all local legislative bodies join together to form a single, county-wide board to develop and maintain an area-wide park system.

This Plan Update also recommends that, through the land development process, methods be initiated to plan for and provide land for public parks. Residential development and park needs are integral parts of new development. Various mechanisms are available whereby land may be donated, dedicated or reserved. In

any event, a county-wide approach must be initiated in order to purchase, maintain, and manage any such lands to be used for such a purpose. Provision of outdoor recreation must be considered just as necessary as roads, water and sewer, police and fire protection, and other basic people-serving facilities/services.

Local Funding of Transportation Improvements

The Transportation Focus Group recommended consideration be given to a variety of transportation improvements, on state and local roads, on a shared basis with local governments and the KTC. It is apparent that many minor improvements, which can be accomplished relatively inexpensively, can be accomplished if local governments work together on an area-wide approach. In this way, no single unit of government needs to bear all expenses for roadway improvements utilized by area residents. Obviously not enough funds are available at the state level to fund all projects, and therefore a need exists to develop more creative financing for such projects.

The concept advocated here is that many minor projects, such as intersection improvements, turn lanes, etc., which have been identified on priority lists for a long period of time, do not get implemented in a timely manner as do more major highway improvements. If improvements are truly important, then a consortium of local governments, possibly with some state assistance and the private sector, where applicable, ought to move ahead and implement such a process. Several examples of cooperation on these types of projects have already been accomplished. These are Horsebranch Road, which included city/county, state and private funds, and the Orphanage Road/Horsebranch Road intersection which was improved using local and state funds. In both of these cases, the Kenton County Fiscal Court took the lead in helping to initiate these efforts. This Plan Update supports establishment of a local consortium that would help to implement such projects.

Flexible Development Regulations

This Plan Update recommends the use of flexible development regulations whenever feasible. The recommended model zoning ordinance update, recently completed, contains examples of several techniques such as planned unit, mixed land use, and residential cluster developments, which provide flexibility for residential development. This Plan Update also recognizes the need for further use of performance standards for use in zoning regulations, which will provide increased flexibility in implementation of the Comprehensive Plan.

Hillside Protection/Conservation

Hillsides in Northern Kentucky provide part of the open space needs and add some of the most recognizable physical characteristics within the Northern Kentucky community. This Plan Update recommends that measures be developed to address hillside development and preservation.

In the early part of 1991, the Hillside Trust published a report entitled, "A Hillside Protection Strategy For Greater Cincinnati". The study documents the critical need to protect forested hillsides which, along with the rivers, provide much of our region's distinctive beauty. The report outlines a broad strategy by which local governments can ensure both the visual and the geotechnical integrity of these beautiful and fragile hillsides.

An analytical model is presented, employing computer mapping techniques to pinpoint those hillsides which are so valuable or fragile that they should be kept free of development, and those hillsides where visual or geotechnical guidelines are needed to ensure that development is carried out sensitively.

The study presents 145 guidelines for reviewing development along hillsides. The guidelines are separated into: public policy guidelines; guidelines for regulating the subdivision of hillside land; guidelines for zoning to regulate the density of hillside development; guidelines for zoning to regulate the character of hillside development; guidelines for regulating earthworks; and guidelines for retention and replanting of vegetation.

Due to the amount of hillside land within Kenton County, this study and the accompanying guidelines could serve as a major resource when evaluating appropriateness of hillside development. It is not the intention of this Plan Update to rely solely upon this report or to unequivocally accept any or all the guidelines on which to base decisions or to use it to supplement regulatory measures, but to use it as a reference in developing appropriate guidelines, with input from all interested parties, including the development and building community. In fact, the NKAPC has used some of these guidelines by incorporating them into the recently completed recommended model zoning ordinance update.

Cooperative Financing Alternatives

Nearly twenty-five years ago, the Northern Kentucky Area Planning Commission's study on government restructure recommended consideration of some form of area-wide revenue sharing. Similar efforts were already in place in other parts of the country, most notably in the Minneapolis-St. Paul region, where the state legislature had passed legislation referred to as the "Fiscal Disparities Bill". The concept of such area-wide revenue sharing is to recognize that new industry-commercial development usually provides new tax monies to the community in which such new development occurs, yet traffic and services necessary to serve these new developments and the work force that follows, become problems for the entire region to solve. Thus, some amount of the tax benefits of such new development should accrue, not just to the community in which such development is located, but to the entire region affected.

Generally this concept argues that when significant benefits are realized or significant problems are encountered by one community in the area, the benefits gained or the problems encountered should be shared by the total community.

This concept seems particularly germane in Northern Kentucky where so many small communities exist, none of them able to provide the full range of services necessary to efficiently serve the residents and workers living and working in this region. Some form of area-wide or regional revenue sharing should be seriously considered. The recently released "Quest" report recommends creation of a task force to research the area tax structure with emphasis given to "...equalizing the burden between the urban cities and suburban cities and various county governments through an equitable revenue-share program."

The American Planning Association is in the process of a major research program which will offer some revenue sharing ideas. The study recognizes that any given solution may not fit all regions of the country and will offer some alternative directions for consideration.

Quest Report Considerations

The Northern Kentucky Chamber of Commerce and the Tri-County Economic Development Corporation joined forces to create *Quest, A Vision for Northern Kentucky*. The recently completed *Quest* report contains initiatives in the areas of governance, education, growth and development, human services, regionalism, and culture and entertainment. This report was developed by volunteers who met in task forces to review the impact of these issues on the future of Northern Kentucky. Several of the recommendations addressed in this and previous Plan Updates have also been included in the *Quest* report. Some of the related recommendations/discussions contained in the *Quest* report are worth noting here.

- Development of a Riverwalk along the Ohio and Licking Rivers, providing walking paths, bikeways, overlooks and green spaces
- Extension of green space from the proposed Riverwalk to Devou Park, then south along Pleasant Run Creek
- Creation of an area-wide park at Dry Creek, connecting to the Ohio River Walkway
- Preservation and protection of existing green space as well as obtaining additional land for future green space and green belts
- Aggressive preservation of wooded hillsides so that they continue as a major aspect of Northern Kentucky's open space
- Preservation of the Main Strasse and Madison Avenue Historic Districts which provide the benefits of attracting economic development and tourism
- Promotion of health care services provided at out-patient type satellite sites such as birthing centers, primary care sites, ambulatory care centers and recovery centers
- Greater diversification of employment opportunities needed for economic growth
- Provision of land, for development of industry, which has access to interstate highway, railroads, and needed utilities
- Maintenance and reinforcement of interaction between the Ohio-Kentucky-Indiana Regional Council of Governments and local governments
- Compliance with the Clean Air Act

- Relief of congested and gridlocked highways
- Decrease in major thoroughfare travel times.
- Implementation of options being considered by the I-71 Corridor Study such as light rail, busway or high occupancy vehicle lanes (increasing the number of individuals per vehicle)
- Improvement of east-west connectors including the 12th Street corridor, KY 536 from Mt. Zion Road to Visalia and the Covington-Newport thoroughfare along Fourth and Fifth Streets
- Planning and construction of additional Ohio River bridges
- Development of computer communications providing residents quick and effective means to participate more directly in their government

CONCLUSION

Many problems continue to exist and still need to be seriously considered as new or amended implementation measures are considered by local governments. A most important consideration is that, whatever implementation measures are finally adopted, they must be adequately enforced and uniformly applied, or they could become more detrimental than beneficial. Implementation measures, such as the ones described herein, are intended to be beneficial and protective to the entire community.

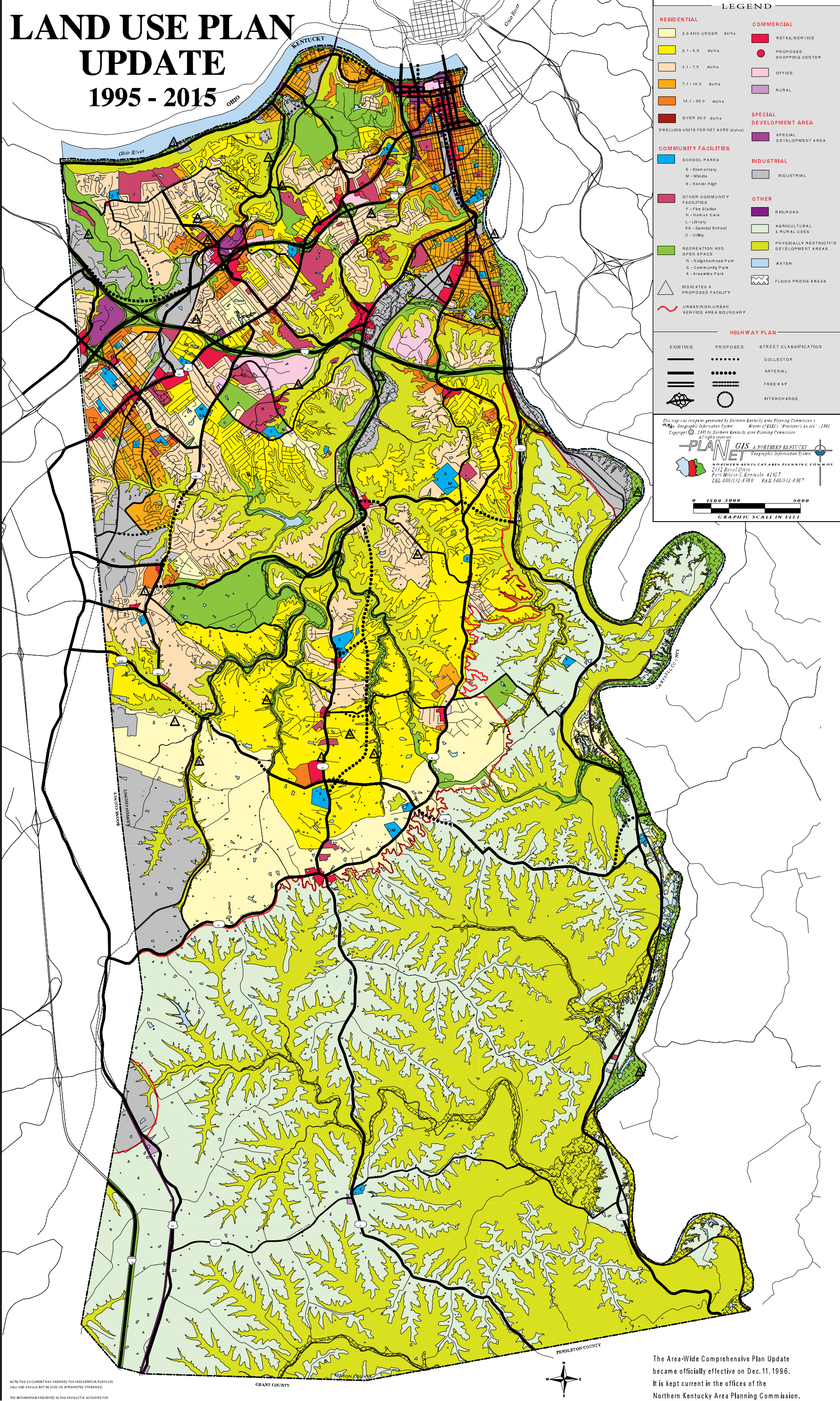
It is important to reiterate that preparation and adoption of the comprehensive plan and the various implementation measures described herein, is only the beginning of the planning process, and, it seems reasonable to incorporate the final statements of the original 1972 Area-Wide Comprehensive Plan document and the 1981, 1986 and 1991 Plan Updates in this update. Rather than to conclude the study at this point, perhaps the purpose for which it was drawn would best be served by reminding the reader of its title:

"Northern Kentucky's Future"

as a means of emphasizing the fact that completion of this study represents the "BEGINNING/CONTINUATION OF THE PLANNING PROCESS OF NORTHERN KENTUCKY RATHER THAN THE END".

The original 1972 Area-Wide Comprehensive Plan was the beginning. In 1981, 1986 and 1991, updates of that plan were prepared. This study is an update of the 1991 Plan and a reasonable and necessary continuation of the planning process. Planning is a dynamic process and one which must be closely coordinated with the desires of the people that it aims to serve.

LAND USE PLAN UPDATE 1995 - 2015



LEGEND

RESIDENTIAL
2.0 AND UNDER du/na
2.1 - 4.0 du/na
4.1 - 7.0 du/na
7.1 - 14.0 du/na
14.1 - 30.0 du/na
OVER 30.0 du/na
DWELLING UNITS PER NET ACRE (du/na)

COMMERCIAL
RETAIL/SERVICE
PROPOSED SHOPPING CENTER
OFFICE
RURAL
SPECIAL DEVELOPMENT AREA
SPECIAL DEVELOPMENT AREA

COMMUNITY FACILITIES
SCHOOL PARKS
E - Elementary
M - Middle
S - Senior High
OTHER COMMUNITY FACILITIES
F - Fire Station
H - Human Care
L - Library
SS - Special School
U - Utility
RECREATION AND OPEN SPACE
N - Neighborhood Park
C - Community Park
A - Area-wide Park
INDICATES A PROPOSED FACILITY
URBAN/RIO-URBAN SERVICE AREA BOUNDARY

INDUSTRIAL
INDUSTRIAL
OTHER
RAILROAD
AGRICULTURAL & RURAL USES
PHYSICALLY RESTRICTIVE DEVELOPMENT AREAS
WATER
FLOOD PRONE AREAS

HIGHWAY PLAN
EXISTING
PROPOSED
STREET CLASSIFICATION
COLLECTOR
ARTERIAL
FREEWAY
INTERCHANGE

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The Area-Wide Comprehensive Plan Update
became officially effective on Dec. 11, 1996.
It is kept current in the offices of the
Northern Kentucky Area Planning Commission.

**ADDENDUM TO THE
1996 AREA-WIDE COMPREHENSIVE PLAN UPDATE**

**AMENDMENTS ADOPTED BY THE KENTON COUNTY AND MUNICIPAL
PLANNING AND ZONING COMMISSION (KC&MP&ZC) ON
OCTOBER 1, 1998**

Words to be added are underlined - Words to be deleted are lined through

CHAPTER IX INFORMATION TECHNOLOGY AND INFRASTRUCTURE

RECOMMENDATIONS

Cellular Towers, PCS Facilities and Satellite Dishes - Siting of cellular phone towers, Personal Communications System (PCS) facilities and satellite dishes should be subject to local review and approval.

The Federal Communications Act of 1996 has severely restricted, to the point of preempting local control, the ability of local authorities to control satellite dish placement for aesthetic reasons. Local authorities have no control over satellite dishes 1 meter (3.28 feet) or less in diameter in residential areas and 2 meters (6.56 feet) or less in commercial areas.

Prior to July 15, 1998, ~~Under current state statutes,~~ cellular towers and their facilities were only ~~are~~ subject to local review and control ~~only~~ when located in Jefferson County, KY. Presumably this will also be the case with the new PCS facilities which will require much higher densities to provide for adequate coverage. Effective July 15, 1998, local ~~Local~~ review and control authority has been ~~should be~~ extended statewide under the jurisdiction of local planning commissions, where applicable, per H.B. 168.

Infrastructure within the public right-of-way is still subject to local control. However, under current state and federal restrictions regarding cellular, PCS and satellite dish technologies, it is a simple matter to bypass local review and control as none of these technologies are restricted by right-of-way access. Legislative initiatives in this area should be examined and considered.

Sites for cellular phone towers, Personal Communication Services (PCS), satellite dishes, and other similar technologies which may be developed, should be examined and evaluated through technologies such as GIS and computer imaging. GIS can be used to locate optimal sites for facilities while computer imaging permits creation of visual models of proposed facilities. Service providers themselves use these technologies when making presentations before boards and commissions in areas of the country having local review and control authority.

Service providers should be required, where feasible, to share towers and site

facilities in order to minimize their proliferation. Aesthetic issues are prominent and will need to be addressed at the local level. It will be important also, as new technologies make such towers or other facilities unnecessary to assure their removal and disposal.

The following design standards should be used when evaluating the siting of such facilities. Where the planning commission finds that circumstances or conditions relating to the particular site are such that one or more of the design standards listed below are not necessary or desirable for the protection of surrounding property or the public health, safety, and general welfare, and that such special conditions or circumstances make one or more said design standards unreasonable, the planning commission may modify or waive such requirement, either permanently or on a temporary basis. Any such modification or waiver should be requested by the applicant, and the applicant should submit a written justification for each requested modification or waiver.

- All structures, except fences, should be located at least fifty (50) feet from the property line or lease line of any residentially zoned property.
- A cellular antenna tower, or alternative antenna tower structure, may be constructed to a maximum height of two hundred (200) feet regardless of the maximum height requirements listed in the specific zoning district. This also applies to any tower taller than fifteen (15) feet constructed on the top of another building or structure, with the height being the overall height of building/structure and tower together, measured from the grade to the highest point. The planning commission may allow antennas greater than two hundred (200) feet in height upon review of the applicant's justification.
- When any cellular antenna tower, or alternative antenna tower structure, is taller than the distance from its base to the nearest property line or lease line, the applicant should furnish the planning commission with a certification from an engineer registered in the Commonwealth of Kentucky that the tower will withstand winds of seventy (70) mile per hour, in accordance with current ANSI/EIA/TIA standards.
- Cellular antenna towers should not be illuminated, except in accord with other state or federal regulations.
- The site should be unstaffed. Personnel may periodically visit the site for maintenance, equipment modification, or repairs. To accommodate such visits, ingress/egress should only be from approved access points.
- A minimum of one (1) off-street parking space, per provider, should be provided on the site.
- Woven wire or chain link (eighty (80) percent open) or solid fences made from wood or other materials (less than fifty (50) percent open), should be used to

enclose the site. Such fences should not be less than four (4) feet in height nor more than eight (8) feet in height. The use of barbed wire or sharp pointed fences should be prohibited. Such fence may be located within the front, side, or rear yard.

- Screening should be required where the site in question abuts residentially zoned property. Screening should be provided by evergreen trees, with a minimum height of six (6) feet, planted in a staggered pattern at a maximum distance of fifteen (15) feet on center. The screening should to be placed in an area between the property line, or lease line, and a ten (10) foot setback.
- Any site to be purchased or leased for the installation of a cellular antenna tower, or alternative antenna tower, and ancillary facilities, should comply with the minimum lot size requirements of the zone in which the facility is to be located, provided that such area should not be required to exceed one-half (1/2) acre.
- Surfacing of all driveways and off-street parking areas should comply with the requirements of the applicable local zoning ordinance.
- There should be no signs permitted, except those displaying emergency information, owner contact information, warning or safety instructions, or signs which are required by a federal, state, or local agency. Such signs should not exceed five (5) square feet in area.
- All new cellular antenna towers should be designed and constructed to accommodate a minimum of three (3) service providers.
- All option and site lease agreements should not prohibit the possibility of co-location.

The following is a list of criteria that is recommended to be used when evaluating the siting of such facilities:

- Cellular Phone Service Providers should be required to co-locate or share tower/facilities with other providers in order to minimize the proliferation of towers/facilities.
- Wherever possible, service providers should be required to use existing structures or facilities which meet all of the requirements of the proposed installation. For example, water towers, radio and television towers, tall buildings, commercial signs, church steeples, etc., in order to minimize the proliferation of new towers/facilities.
- Wherever possible, siting of such facilities should be required to be located in areas identified for industrial or commercial type uses.

- When located in residential areas, such facilities should be heavily screened from view and towers should be camouflaged or designed in such a manner to blend into the surrounding area. Changes in topography of the land can be used effectively to separate such facilities from adjacent residential uses.
- To provide for proper separation, adequate setbacks should be provided based upon adjacent land uses.
- The type of tower (e.g., monopole, carillon, etc.) should be evaluated based upon adjacent land uses and character of affected areas.
- When the facility is no longer required, it should be removed by the owner and the land restored to its natural state.
- Agreement with the various elements of the adopted comprehensive plan, and where applicable, any other adopted plan.
- Extent to which the proposal is consistent with the purposes of these regulations.
- Adequacy of the proposed site, considering such factors as the sufficiency of the size of the site to comply with the established criteria, the configuration of the site, and the extent to which the site is formed by logical boundaries (e.g., topography, natural features, streets, relationship of adjacent uses, etc.).
- Extent to which the proposal responds to the impact of the proposed development on adjacent land uses, especially in terms of visual impact.
- Extent to which the proposed cellular antenna tower camouflaged (i.e., use of "stealth technology").
- Extent to which the proposed facility is integrated with existing structures (i.e., buildings, signs).

Map 9A shows the location of existing telecommunication towers and new tower locations which have been submitted for recent regulation by the NKAPC.

**ADDENDUM TO THE
1996 AREA-WIDE COMPREHENSIVE PLAN UPDATE**

**AMENDMENTS ADOPTED BY THE KENTON COUNTY AND MUNICIPAL
PLANNING AND ZONING COMMISSION (KC&MP&ZC) ON
JULY 1, 1999**

Words to be added are underlined - Words to be deleted are lined through

CHAPTER IX INFORMATION TECHNOLOGY AND INFRASTRUCTURE

RECOMMENDATIONS

Cellular Towers, PCS Facilities and Satellite Dishes - Siting of cellular phone towers, Personal Communications System (PCS) facilities and satellite dishes should be subject to local review and approval.

The Federal Communications Act of 1996 has severely restricted, to the point of preempting local control, the ability of local authorities to control satellite dish placement for aesthetic reasons. Local authorities have no control over satellite dishes 1 meter (3.28 feet) or less in diameter in residential areas and 2 meters (6.56 feet) or less in commercial areas.

Prior to July 15, 1998, cellular towers and their facilities were only subject to local review and control only when located in Jefferson County, KY. Presumably this will also be the case with the new PCS facilities which will require much higher densities to provide for adequate coverage. Effective July 15, 1998, local review and control authority has been extended statewide under the jurisdiction of local planning commissions, where applicable, per H.B. 168.

Infrastructure within the public right-of-way is still subject to local control. However, under current state and federal restrictions regarding cellular, PCS and satellite dish technologies, it is a simple matter to bypass local review and control as none of these technologies are restricted by right-of-way access. Legislative initiatives in this area should be examined and considered.

Sites for cellular phone towers, Personal Communication Services (PCS), satellite dishes, and other similar technologies which may be developed, should be examined and evaluated through technologies such as GIS and computer imaging. GIS can be used to locate optimal sites for facilities while computer imaging permits creation of visual models of proposed facilities. Service providers themselves use these technologies when making presentations before boards and commissions in areas of the country having local review and control authority.

Service providers should be required, where feasible, to share towers and site facilities in order to minimize their proliferation. Aesthetic issues are prominent and will need to be addressed at the local level. It will be important also, as new technologies make such towers or other facilities unnecessary to assure their removal and disposal.

The following design standards should be used when evaluating the siting of such facilities. Where the planning commission finds that circumstances or conditions

relating to the particular site are such that one or more of the design standards listed below are not necessary or desirable for the protection of surrounding property or the public health, safety, and general welfare, and that such special conditions or circumstances make one or more said design standards unreasonable, the planning commission may modify or waive such requirement, either permanently or on a temporary basis. Any such modification or waiver should be requested by the applicant, and the applicant should submit a written justification for each requested modification or waiver.

- All structures, except fences, should be located a minimum distance at least fifty (50) feet from the property line or lease line of any adjoining residentially zoned property that is equal to one-half (1/2) the height of the tower, but not less than fifty (50) feet.
- A cellular antenna tower, or alternative antenna tower structure, may be constructed to a maximum height of two hundred (200) feet regardless of the maximum height requirements listed in the specific zoning district. This also applies to any tower taller than fifteen (15) feet constructed on the top of another building or structure, with the height being the overall height of building/structure and tower together, measured from the grade to the highest point. The planning commission may allow antennas greater than two hundred (200) feet in height upon review of the applicant's justification.
- When any cellular antenna tower, or alternative antenna tower structure, is taller than the distance from its base to the nearest property line or lease line, the applicant should furnish the planning commission with a certification from an engineer registered in the Commonwealth of Kentucky that the tower will withstand winds of seventy (70) mile per hour, in accordance with current ANSI/EIA/TIA standards.
- Cellular antenna towers should not be illuminated, except in accord with other state or federal regulations.
- The site should be unstaffed. Personnel may periodically visit the site for maintenance, equipment modification, or repairs. To accommodate such visits, ingress/egress should only be from approved access points.
- A minimum of one (1) off-street parking space, per provider, should be provided on the site.
- Woven wire or chain link (eighty (80) percent open) or solid fences made from wood or other materials (less than fifty (50) percent open), should be used to enclose the site. Such fences should not be less than four (4) feet in height nor more than eight (8) feet in height. The use of barbed wire or sharp pointed fences should be prohibited. Such fence may be located within the front, side, or rear yard.
- ~~Screening should be required where the site in question abuts residentially zoned property.~~ Screening should be provided by evergreen trees, with a minimum height of six (6) feet, planted in a staggered pattern at a maximum distance of fifteen (15) feet on center. The screening should to be placed in an area between the property line, or lease line, and a ten (10) foot setback.

- Any site to be purchased or leased for the installation of a cellular antenna tower, or alternative antenna tower, and ancillary facilities, should comply with the minimum lot size requirements of the zone in which the facility is to be located, provided that such area should not be required to exceed one-half (1/2) acre.
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- Agreement with the various elements of the adopted comprehensive plan, and

where applicable, any other adopted plan.

- Extent to which the proposal is consistent with the purposes of these regulations.
- Adequacy of the proposed site, considering such factors as the sufficiency of the size of the site to comply with the established criteria, the configuration of the site, and the extent to which the site is formed by logical boundaries (e.g., topography, natural features, streets, relationship of adjacent uses, etc.).
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