

ENVIRONMENTAL CHARACTERISTICS

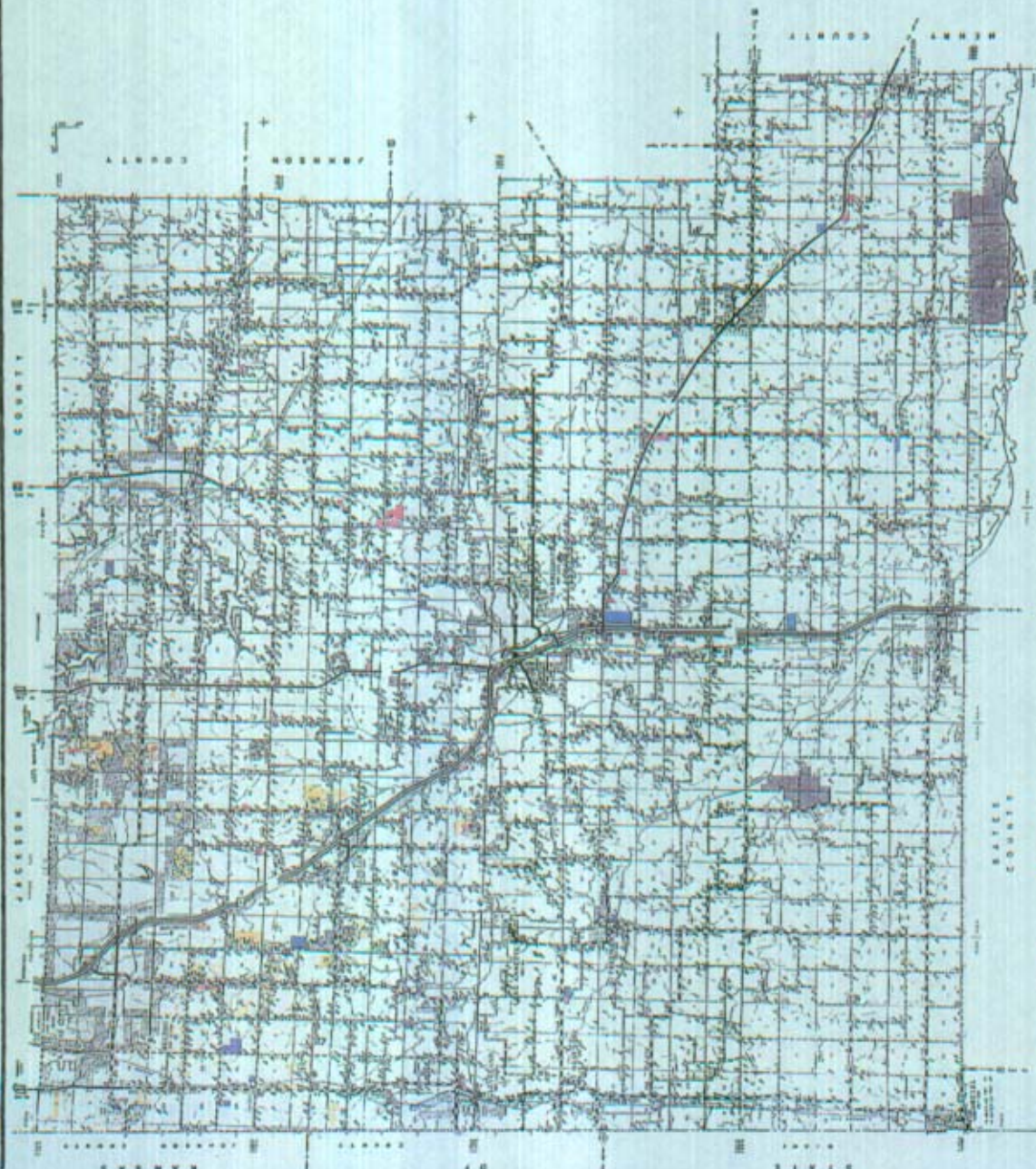
LEGEND

- 100-Year Flood Plain
- Major Ridge Lines
- Secondary Ridge Lines



Jackson County Comprehensive Plan

Jackson County, Missouri



EXISTING LAND USE December 1989

LEGEND

- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential
- Mobile Home
- Farmstead
- Commercial
- Industrial
- Public & Semi-Public
- Parks & Recreation
- Vacant or Agricultural



CHAPTER THREE ENVIRONMENTAL CHARACTERISTICS AND EXISTING LAND USE

ENVIRONMENTAL CHARACTERISTICS

In order to make intelligent decisions regarding the location, intensity, and type of future development in *Cass County*, it is necessary to explore the possible limitations placed on urban growth by the environment. Although most developmental limitations can be overcome, the enormous additional cost in terms of both public and private investment makes this a very cost-inefficient alternative. Instead, it is preferable to encourage growth in those areas which can best accommodate urban development and discourage growth in those areas with the most severe limitations. By avoiding problem areas, the safety and convenience of the public can be increased and the public and private costs associated with development can be minimized.

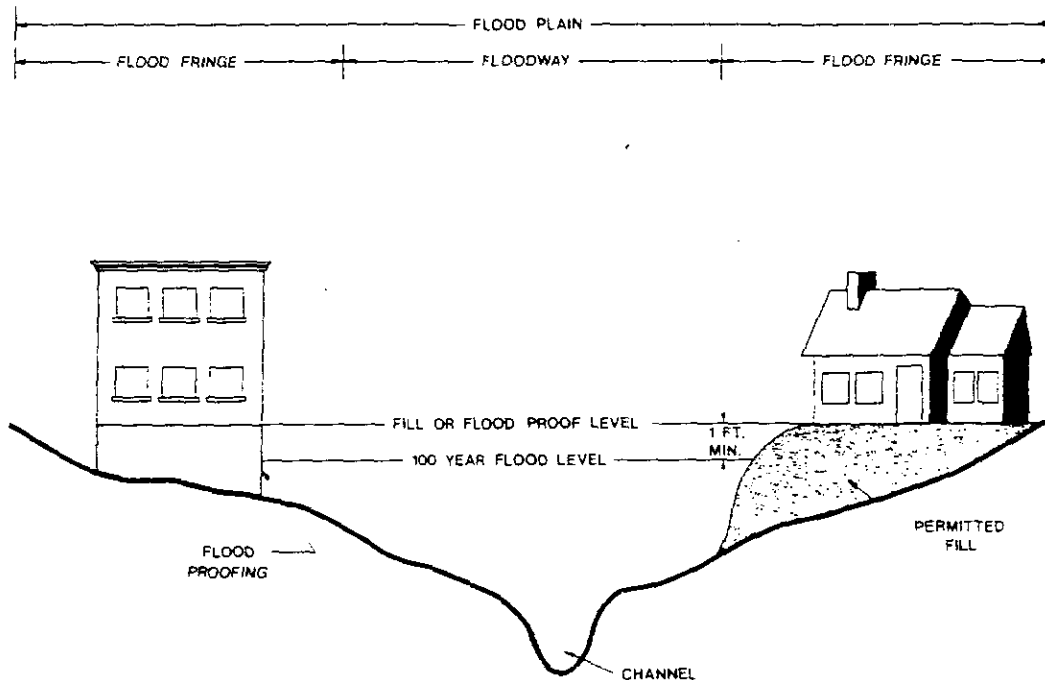
This section will elaborate on the physical and environmental characteristics most relevant to development in *Cass County*.

Flooding

One of the most obvious and potentially most destructive environmental limitations to development is flooding and, consequently, is an extremely important issue in the planning process. The 100-year flood plain as defined by the Federal Emergency Management Administration (FEMA) is generally accepted as the determining area of flooding for the purposes of planning and development. Areas within the 100-year flood plain have a 1-in-100 chance of flooding in any given year. The extent of the land area which lies within the 100-year flood plains of the South Grand River and its numerous tributaries will limit the extent and location of future development within *Cass County*. The flood plain is the land that would be inundated with flood water after a 100-year flood and consists of two sections: the floodway and the flood fringe. The floodway includes the center of the channel of a creek, stream or river and that area which carries the majority of the flood waters. Under no conditions is construction permitted in the floodway. The flood fringe extends from the floodway to the outer edge of the flood plain. While it is preferable that urban development not occur in the flood plain altogether, development can occur in the flood fringe. Construction in the flood fringe must be at least one foot above the 100-year flood level and development within the flood fringe cannot increase the floodway 100-year flood elevation by a cumulative total increase of one foot or more. It is generally recommended that if any development is permitted in the flood fringe, it be confined to low density, non-residential uses. The relationship between the flood plain, floodway, and the flood fringe is illustrated in Figure 3-1.

Figure 3-1

Flood Plain Profile

*Drainage Patterns*

Drainage patterns within the County have implications for development and must be illustrated and discussed within the planning process. The availability of utilities, access to a sanitary sewerage system, in particular, significantly affects patterns of growth. To be cost-effective, a sanitary sewerage system should be gravity flow and drainage basins, therefore, become a key consideration in planning for the future of the area. The major drainage basins in Cass County have been designated on the Environmental Characteristics Map.

Two major drainage basins or watersheds in Cass County are formed by the ridgeline which runs continuously from the northwest to the southeast corners of the County passing through the east portion of Harrisonville. The area to the south of this ridge, approximately two-thirds of the County, drains into the South Grand River via its tributaries. The largest of these is the East Branch, a watershed which includes

Peculiar and parts of Harrisonville. The South Grand River flows toward the southeast and forms the County's southern boundary from just east of Archie to the Henry County line. The river eventually empties into the Harry S. Truman Reservoir just west of Clinton, Missouri. The area to the north of the County's major ridgeline drains into Big Creek, Crawford Creek and Camp Branch, all of which eventually empty into the South Grand River further to the south and east, outside of the County's boundaries.

EXISTING LAND USE

This section examines the pattern of existing land uses in *Cass County*. The inventory of existing land uses describes both the amount of land in each land use category and the distribution of uses across the County. Before the future land use pattern of *Cass County* can be determined, it is necessary to have a full understanding of the existing land use pattern. The location and character of existing uses will have an obvious impact on the location and character of future uses.

Land Use Survey

A field survey of the existing land uses in *Cass County* was conducted by Bucher, Willis & Ratliff in December of 1989. The land use inventory is a current identification of the uses of land throughout the study area. Land use classifications are as follows:

1. Residential
 - a. Single-Family Dwellings
 - b. Two-Family Dwellings
 - c. Multi-Family Dwellings
 - d. Mobile Homes
 - e. Mobile Home Farms
 - f. Farmsteads
2. Commercial
3. Public and Semi-Public
4. Industrial
5. Parks and Recreation
6. Highways and Streets
7. Railroads
8. Agricultural or Vacant

These categories can be defined in the following manner:

1. Residential: That land which is occupied by one or more dwelling units, including accessory buildings, the primary use being for sheltering individuals, families, or groups of persons. Examples: single-family residences, duplexes, apartments, mobile homes, mobile home farms, farmsteads and nursing homes. Farmsteads are considered as houses occupied by residents who are engaged principally in the farming of surrounding properties. Suburban acreages are not considered as farmsteads.
2. Commercial: That land occupied by buildings or merchandise, the primary purpose of the land being a location for the wholesale or retail sale of goods and services. Examples: grocery stores, clothing, car sales and service, farm equipment sales.
3. Public and Semi-Public: Land or buildings occupied by agencies of the government or by religious, educational or civic groups, excluding lands used for recreational purposes. Examples: schools, churches, cemeteries, city buildings, fire stations.
4. Industrial: That land occupied by buildings, materials or equipment, the primary use being for storage, transportation, or manufacturing of a product. Examples: manufacturing, construction yards, heavy equipment or material storage, warehousing.
5. Parks and Recreation: Land used for both active and passive recreational activities.
6. Highways and Streets: Rights-of-way for highways, streets and alleys opened for use as public thoroughfares.
7. Railroads: Land for railroad rights-of-way, train storage, switching, and freight and passenger depots.
8. Agricultural or Vacant: Land on which none of the above uses are performed.

The results of the survey are presented in both graphic form as a map and tabular form as acreage calculations. The land use inventory is not a plan, but rather a portion of the necessary data which comprises a plan. To keep the plan current, this inventory should also be kept current. This can be accomplished by periodic² land

²It is recommended that new building permits be recorded annually.

use surveys, or by updating the map and adjusting the inventory calculations as new building permits are issued, or as tax records are changed. By keeping the land use data current, the County can always assess where it is in relation to its development objectives and goals as outlined in following chapters of the Comprehensive Plan.

Land Use Survey Results

Table 3-1 displays a summary of existing land uses within *Cass County*. Overall, 21,512 acres of the County's total land area has been developed in some way. This represents 5% of the County's total land area of 429,555 acres or 671 square miles. This figure does not include the approximately 32,115 acres or 50 square miles of incorporated area within the County. The largest of the 18 separate incorporated areas is the City of Raymore with 8,722 acres followed by Belton with 8,706 acres, Harrisonville, 5,207 acres and Pleasant Hill, 2,507 acres (Table 3-2).

The results of the land use survey show that, in terms of acreage, the County's predominant land use is agricultural. Despite the fact that *Cass County* includes large areas of suburban concentrations, 95% of the total land area is either agricultural or vacant. The next most extensive use of the land is that amount, 2% of the total land area, reserved for the County's system of roads and highways. Two large areas, 4,370 acres of Missouri Conservation and Wildlife Areas in southern *Cass County* comprise 1% of the total land area. The rest of the land uses combined represent less than 3% of the total land area.

Residential

The County's predominant residential use is the farmstead. This use occupies 4,004 acres or 18 percent of the County's total developed land area. The percentage of farmsteads far exceeds those of any of the other residential uses; however, a substantial suburban pattern of growth extending southward from the Belton-Raymore area and around Harrisonville may threaten agricultural operations. While residential farms are widely scattered throughout the County, concentrations of this use occur in the northwest corner around Belton and Raymore and the area surrounding Harrisonville.

Mobile homes and mobile home farms are both numerous and widely scattered throughout the County representing 3 percent of the developed land area. A significant concentration of mobile homes was located several miles south of Belton.

The only multi-family housing was located in the area south of Belton.

TABLE 3-1
Existing Land Use
Land Use Survey
Cass County, Missouri
1989

Land Use Category	Land Area** (Acres)	Percent of Developed ⁻ Land	Percent of Total Land Area	Acres per 100 Persons*
Residential				
Single-Family	983	4.5	.23	1.6
Two-Family	5	.02	.001	.008
Multi-Family	108	.5	.03	.18
Mobile Home	455	2.1	.10	.74
Farmstead	3,999	18.3	.93	6.5
Mobile Home Farm	219	1.0	.05	.36
Commercial	350	1.6	.08	.57
Industrial	734	3.4	.17	1.2
Public and Semi-Public	620	2.8	.14	1.0
Parks and Recreation	4,370	20.3	1.0	7.1
Roads/Highways	9,322	43.3	2.2	15.2
Railroad	<u>656</u>	<u>3.0</u>	<u>.15</u>	<u>1.1</u>
Total Developed Land (Acres)	21,821	100.0	5.1	35.6
Vacant and Agricultural	<u>407,734</u>	<u>---</u>	<u>94.9</u>	<u>664.0</u>
Total Land Area (Acres)	429,555	---	100.0	699.6

Source: Bucher, Willis & Ratliff, 1989 Field Survey

Note: * Cass County Population, 61,400, 1988 Census Bureau Estimate

** In calculating the number of acres for each land use, it was assumed that each unit of single-family, two-family, mobile home, farmstead, and mobile home farm use occupies one acre of land. Commercial and public uses were calculated in the same manner except in the case of large continuous areas of either of these uses in which case the area was measured from the land use survey map. All industrial uses were measured. Roads and highways were calculated using the following average right-of-way widths: County Roads, 50'; State and U.S. Highways, 100'; U.S. 71 Highway, 300'; Railroads, 50'.

TABLE 3-2
Incorporated Land Areas
Cass County, Missouri

Incorporated Area	Land Area (Acres)	Percent of County Total Land Area
Archie	667	.16
Baldwin Park	85	.02
Belton	8,706	2.0
Cleveland	934	.22
Creighton	183	.04
Drexel (Partial)	535	.12
East Lynne	214	.05
Freeman	273	.06
Garden City	918	.21
Gunn City	68	.02
Harrisonville	5,207	1.2
Kansas City (Partial)	694	.16
Lake Annette	216	.05
Lake Winnebago	1,377	.32
Lee's Summit (Partial)	668	.16
Peculiar	848	.20
Pleasant Hill	2,507	.58
Raymore	8,722	2.0
Strasburg	170	.04
West Line	74	.02
Total Incorporated Area	33,066	7.5

Commercial

Commercial uses are, predictably, concentrated in the Belton-Raymore area and around the major highway corridors, specifically U.S. 71 Highway, Highway 291, Highway 7 and Highway 2. The largest concentration of commercial uses occurs south of Harrisonville in the area surrounding the intersection of Highway 2 and U.S. Highway 71. A significant number of commercial operations scattered throughout the County and outside of the highway corridors are located in association with either single-family residences or farmsteads.

Industrial

The amount of industrial land is small. Slightly more than 3% of the developed land area was classified as industrial. This industrial land is a combination of manufacturing uses as well as oil and gas storage and quarry operations.










Park and Recreation Land

The Missouri Department of Conservation maintains two large areas of land in southern *Cass County*. Settle's Ford Wildlife Area, part of which is located in Bates County, occupies approximately 3,489 acres in *Cass County* and Amarugia Highlands Wildlife Management Area occupies 881 acres northwest of Archie, Missouri.

CHAPTER FOUR
FUTURE LAND USE

FUTURE LAND USE

LEGEND

-  Urban Area Reserve
-  Primary Residential Development Area
-  Secondary Residential Development Area
-  Future Commercial Node
-  Open Space / Resource Protection Area
-  Major Arterials
-  Minor Arterials
-  Urban Area Major Arterials
-  Urban Area Minor Arterials



Cass County Comprehensive Plan

Cass County, Missouri



CHAPTER FOUR FUTURE LAND USE

URBAN ISSUES

Due to the nature and intensity of development in its northern tier, *Cass County* is facing an increasing number of urban issues which have not, traditionally, been within the realm of County concerns. It is clear that the County's urban "fringe" areas are currently of primary concern and need to be protected. It follows that communication and coordination with and among the *Cass County* incorporated areas is critical. Representatives from six cities in *Cass County* were interviewed as to their concerns about land use and development within the County, particularly in the areas surrounding their city limits. The cities were: Belton, Raymore, Harrisonville, Pleasant Hill, Lake Winnebago and Peculiar. The following report is a summary of the key issues that were raised in the interviews which were conducted.

Perceived Barriers to Annexation

Subdivisions which are being developed adjacent to incorporated areas present problems which are hindering the growth of the cities in *Cass County*. Subdivisions constructed below the standards of city building and development codes present a potential financial burden for the surrounding cities. The cost of upgrading these developments to city standards, in the event that city limits are extended to include these areas, can be great. In addition, it is often not to the cities' advantage to incorporate large lot developments. The low increase in tax base which these areas represent does not offset the cost of acquiring, upgrading and providing municipal services. The Missouri Courts, in hearing cases regarding annexations, recognize the "beneficial effect of the uniform application and enforcement" of ordinances, regulations, codes and services in these fringe areas and support annexation if it can be proven to be necessary to the proper development of the municipality.

Municipal Services

The issue of self-sufficiency versus reliance on the Kansas City metropolitan area for municipal services is of concern to many of the cities. Issues deserving attention include:

- Should the incorporated areas in the northern half of the County develop their own facilities or should they rely on connecting to existing Kansas City area systems?
- At what point geographically does the connection with Kansas City become inefficient and too distant?

- Should the County develop its own solid waste treatment facilities?
- Should the County play a role in evaluating and coordinating its water resources, supplies and distribution?
- Should the County encourage the development of Sewer Districts?

Roads

Both road maintenance and design standards are a concern to communities in *Cass County*. As development proceeds, the County may be able to respond to increased development by ensuring that County roads will be upgraded to urban standards in order to handle increased capacities. Major paved roads should connect public and large commercial facilities such as schools and shopping areas.

Impact and User Fees

The concept of charging impact and user fees to more evenly and justly distribute the cost of maintaining facilities is now being considered by the City of Raymore; a financing mechanism which the County may want to consider in the future.

THE FUTURE LAND USE PLAN

In response to the discussions with the *Cass County* incorporated areas and in consideration of the issues and trends that have been identified in this report, the following Future Land Use Plan has been developed.

The *Cass County* Land Use Plan is a long-range perspective of future land use. It identifies broad general directions for future development and is not intended to establish the proper use of each and every parcel of land. In practice, as individual decisions need to be made, the conditions and principles discussed throughout this plan should be consulted and considered along with the summarized land use patterns on the map and the set of goals, objectives and policies which have been established. The Future Land Use Plan encourages directing growth in the following ways:

- Concentrating urban land uses
- Restricting development in specific areas
- Separating incompatible land uses

The County's role in implementing the plan and thus, in guiding its own development, is in directing growth to specific areas in order that the conservation of resources including natural, cultural, agricultural and past and private investments is assured and so that a managed urban growth pattern in the County is achieved.

It must be emphasized that the value of the Comprehensive Plan to the decision-making process is good only as long as the plan is kept current. On-going changes should be reflected in the inventories of man-made and natural characteristics presented in earlier chapters. A current tally of existing conditions will not only allow for an up-to-date analysis of needs, but will also allow for a measurement of success at achieving formally stated goals and objectives.

AREAS OF CONCENTRATED URBAN LAND USES

The *Cass County* Future Land Use Plan encourages the concentration of urban land uses so as to maximize the benefits from land already within the urban area through infill development on under-utilized sites and in areas within proximity of municipal services. Development (or the type of development) can be encouraged or discouraged by designating zones of development each with its own design standards and representing development standards which are more compatible with city standards.

Urban Area Reserve

An area one mile surrounding each of the incorporated areas has been defined as an urban area reserve and is the area within which the urban-oriented land uses in the County will be encouraged to locate. The land within the boundaries of this zone is intended to be developed in such a way that the transition from rural to urban uses occurs in an efficient manner and a pattern of inefficient "leap-frog" development is avoided.

Primary Residential Area

The first one-half mile of the urban area reserve has been designated as the primary residential area. This urban area reserve would include, as well, any areas that are included within both a resolution and a plan of intent to annex. It is within this area that the following policy will be enforced:

Only one "sell-off" parcel of not less than five acres in area per quarter of a quarter section of land provided sewage disposal requirements may be met. However, developers or subdividers may exceed this requirement within this zone if they petition the adjacent city for annexation and develop to their standards.

Secondary Residential Development Area

The area within the one-mile urban area reserve, but outside of the one-half mile primary residential area, has been designated as the secondary residential area. This would include, as well, those land areas that are within one-half (½) mile of an urban area, but are not available for annexation due to the fact that they are not contiguous to present city limits. It is within this area that the following policy will be enforced:

Only one "sell-off" parcel of not less than five acres in area per quarter of a quarter section of land provided sewage disposal requirements may be met. However, developers or subdividers may exceed this requirement within this zone if the subdivision design, including the construction of roadways and water service, is provided to the nearby city's standard, and the provision for sewage disposal on a system other than conventional septic tanks is incorporated within the improvement.

Future Commercial Nodes

The majority of commercial uses should be encouraged to locate within the urbanizing areas of the County. Commercial nodes have been identified at the intersection of major arterials that occur within the urban area reserve.

AREAS OF RESTRICTED DEVELOPMENT

Rural Area Residential Development

In other areas of the County, outside of the urban area reserve, the following policy regarding residential development will be enforced:

Only one "sell-off" parcel of not less than five acres in area per quarter of a quarter section of land provided sewage disposal requirements may be met. However, should the developer or subdivider wish to exceed the two houses per forty-acre density in an area that is greater than one mile from an incorporated place, provisions must be made for acceptable standard streets, water service and sewer service including a maintenance fund for those systems. In addition, some provisions must be made for the maintenance of roadways leading to and from the development.

Exception: Any farmhouse existing at the adoption of the zoning regulations may be sold off on a parcel not less than five (5) acres in area provided sewage disposal requirements and lot split requirements may be met.

Open Space Resource Protection Area

All areas within the 100-year flood plain are encouraged to remain undeveloped. Construction should not be permitted in the floodway or that portion of the flood plain which includes the center of the channel of a creek, stream or river and the area which carries the majority of the flood waters. Development can occur, however, in the flood fringe which is the area that extends from the floodway to the outer edge of the flood plain. Construction in the flood fringe should not increase the floodway 100-year flood elevation by a cumulative total of one foot or more and it is generally recommended that if any development is permitted in the flood fringe, it be confined to low density, non-residential uses. In considering specific development proposals which occur in the flood plain, it is recommended that the members of the planning commission refer to maps generated by the Federal Emergency Management Agency to identify floodway and flood fringe boundaries for specific areas. Missouri Department of Conservation lands, and the area within one-half (½) mile of city water supply reservoirs, are also designated as resource protection areas and are encouraged to remain undeveloped.

SEPARATION OF LAND USES

One of the most basic factors affecting the use of a given parcel of land is the use of adjoining parcels. This is due to the fact that the use of land has an impact that goes beyond the boundary of the land being used. Economists refer to this impact as a "land use externality" because it is generally not included in the property owner's decision-making process since it is external to the efficiency and profitability of the property being used. As an example of land use externalities, a house surrounded by sand and gravel pits is less enjoyable to live in and has less value for residential purposes than the same house surrounded by similar houses. The noise, smoke and heavy truck traffic generated by the excavations are so incompatible with residential life that the value of the house declines. Yet the gravel pit owners have no economic incentive to lessen the impacts of their activities since the declining value of the house does not affect the profitability of their businesses. In effect, it is a cost imposed by the gravel pit owners on the owner of the house. In addition, there is often the undesirable side-effect of accelerated deterioration. The owner of the house, to continue the previous example, has little incentive to maintain or improve the condition of his house because it is likely that only a small fraction of the cost of the improvements can be recovered when the house is sold. The best way to minimize these external costs is to separate incompatible land uses or buffer them from each other.

On the other hand, it is equally important to realize that community design can create positive externalities. A recreational or tourist-related business, for example, will frequently do better if it is located adjacent to other similar businesses than if located

by itself. This is because each business benefits from the traffic attracted by the other businesses. The increase in business is an example of a positive land use externality.

In general, residential land uses are the most sensitive to adjacent land uses. This is because the characteristics which most people value in a residential area – quiet, serenity, stability, to name but a few – are the most difficult characteristics to find and maintain. Most urban uses are intensive enough to disrupt these characteristics unless they are sufficiently buffered from residential areas.

Finally, it is important not to think of land use externalities solely in terms of economic effects. Minimizing negative externalities and creating positive externalities can lead to a variety of benefits. Not only will property values be increased and stabilized, but social values can be reinforced, safety and convenience can be improved, and psychological stress can be lessened.

THOROUGHFARE PLAN

The objective of the *Cass County* thoroughfare plan is to create a continuous and efficient network of roads which provide an easy, safe and efficient vehicular flow through the incorporated areas and within the unincorporated areas of the County. Major and minor arterial road systems constitute the high speed, high volume network for travel in both rural and urban areas.

Rural Arterials

Long distance movements throughout the County are typically accommodated on arterial roads which range from two-lane roadways to multi-lane, divided, controlled-access arterials. Ideally, arterial roads provide uninterrupted connection between areas of principal traffic generation. On a County-wide scale, arterial roads are the equivalent of the major highway routes such as Federal-Aid Interstate or Federal-Aid Primary roads.

Proposed Arterial Network

Cass County's network of major arterials including U.S. 71 Highway, Highway 291, Highway 7 and a proposed east/west arterial in the northern tier of the County will adequately serve the needs of the County through the planning period. Highway 291, the northern portion of Highway 7 and the proposed east/west arterial running south of Belton and Raymore will serve the rapidly urbanizing northern half of the County. U.S. 71 Highway will continue to function as the most important link connecting the County from north to south. The current network of minor arterials through the County, however, is disjointed and in places inefficiently aligned. In generating the plan, portions of both highway and County road right-of-way have

been connected to create continuous thoroughfares in both the east/west and north/south directions. The following minor arterials have been connected and to some extent realigned: Highways Y and O; Highways A and B; Highways F, Z, M and E; Highway 2 (realigned north of Freeman).

The alignment of urban area major and minor arterial roads as indicated on the Future Land Use Map were transferred from the Belton, Raymore, Pleasant Hill and Harrisonville Comprehensive Plans.

Acquisition of Right-of-Way

For most of the County, two-lane arterials will adequately serve the future traffic demands; however, in the more urbanized portions of the County, two-lane arterials will require ultimate development to a higher type to handle the expected traffic. These changes need to be anticipated so that provisions can be made to acquire the necessary right-of-way.

The required right-of-way width is the sum of the widths of all the various cross-sectional elements which vary according to ultimate traffic requirements, topography, land use, cost and intersection design. The cross-section of an arterial road includes traffic lanes, median, auxiliary lanes, shoulders, borders and where required, frontage roads, outer separations, side slopes and retaining walls. The width of right-of-way should be based on the preferred dimensions of each of these elements to the extent that it is possible. Illustrated in Figures 4-1 to 4-3 are the desirable dimensions for a 4-lane divided rural arterial with and without a frontage road and for a 4-lane rural freeway.

**Figure 4-1
4-Lane Rural Arterial**



Figure 4-2
4-Lane Rural Arterial with Frontage Road

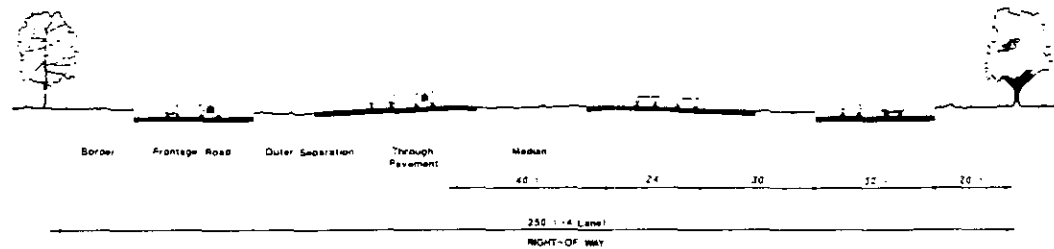
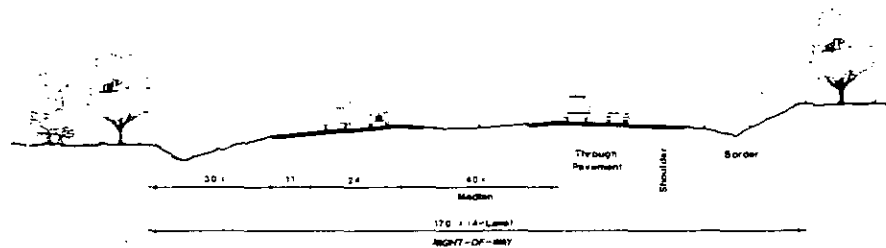


Figure 4-3
4-Lane Rural Freeway



GOALS, OBJECTIVES AND POLICIES

Goals, objectives and policies are statements which represent the generalized framework of the desires of the community. This set of written criteria identifies the County's key issues and will, eventually, supplement the Future Land Use Plan by more specifically defining what the County desires in terms of growth and development. The relationship between goals, objectives and policies is as follows: Goals are broad statements which describe what the County aspires to provide for its residents and its communities and what it hopes to achieve. Objectives are more specific statements which outline methods of accomplishing these goals. Policies are specific actions or standards designed to implement an objective.

The following set of goals, objectives and policies have been prepared for use in the planning work sessions. They represent a preliminary set of development criteria and it is expected that the Planning Commission will want to add to, revise and refine these as they see fit. As the land use goals of *Cass County* are revealed in the planning proces, the Planning Commission must work to articulate the specific objectives and policies for the development of the area.

General Development and Land Use Relationships

GOAL: TO PROVIDE THE OPPORTUNITY FOR DEVELOPMENT OF URBAN, SUBURBAN AND RURAL LAND USES WHILE PROVIDING FOR THE APPROPRIATE LOCATION AND RELATIONSHIP AMONG THESE THREE LAND USES.

OBJECTIVE G1 Manage the location and design of new subdivisions and developments in order to minimize initial and future public and private costs.

POLICY G1.1 New urban development should be encouraged to locate in and around incorporated communities where municipal services and public facilities are already present. These new developments should be encouraged to connect to such services.

POLICY G1.2 New urban development should be encouraged to be contiguous to existing development to avoid the inefficient "leap-frog" pattern of growth.

POLICY G1.3 Rural development within the unincorporated portion of the County should be encouraged to occur only on a limited scale to prevent the inefficient use and distribution of public facilities and services, and to prevent the County's rural development from becoming urban in nature which would, thereby, create urban demands on the County.

POLICY G1.4 The general policy is to allow only one "sell-off" parcel of not less than five acres in area per quarter of a quarter section of land provided sewage requirements may be met. However, developers or subdividers may exceed this requirement in certain circumstances, as follows:

- a. If within one-half mile of and adjacent to an incorporated city in *Cass County*, they petition that city for annexation and develop to their standards.

This policy shall also apply to areas which are included within an official "Plan of Intent" to provide services for annexation.

- b. If within one mile of an incorporated city in *Cass County*, and not adjacent to an incorporated city, subdivision design, including the construction of roadways and water service is provided to the nearby city's standard, and the provisions for sewage disposal on a system other than conventional septic tanks is incorporated within the improvement.
- c. Lastly, should the subdivider wish to exceed the two houses per forty-acre density and is greater than one mile from an incorporated place, then provisions must be made for acceptable standard streets, water service and sewer service; including a maintenance fund for those systems. In addition, charges for increased demand for police and fire protection, as well as other services, may be passed directly to the subdivider or property owners.
- d. Exception: Any farmhouse existing at the adoption of the zoning regulations may be sold off on a parcel not less than five (5) acres in area provided sewage disposal requirements and lot split requirements may be met.

POLICY G1.5

Over-zoning or zoning to meet a greater than five-year development demand should be avoided to prevent a scattering of uses and a reduced marketability of land within the County.

POLICY G1.6

Subdivisions shall have direct access to a paved collector or arterial road.

POLICY G1.7

All utilities for new development shall be mapped and approved prior to installation.

OBJECTIVE G2 Minimize conflicts between rural and urban land uses.

POLICY G2.1

Residential, commercial or industrial land uses should be encouraged to develop in areas where they are not likely to interfere with or become a nuisance to normal farming operations.

POLICY G2.2 Residential, commercial or industrial land uses should be encouraged to develop in areas where they are not likely to generate an amount or type of vehicular traffic which exceeds the design standards of the existing road system.

POLICY G2.3 Uses such as commercial or industrial land uses should not be permitted in rural areas if they are likely to interfere with or become a nuisance to normal farming operations.

POLICY G2.4 The bulk storage of agricultural chemicals or petroleum products which are flammable or toxic should not be allowed adjacent to residential areas nor shall residential development be allowed adjacent to existing storage facilities.

POLICY G2.5 Uses such as commercial feedlots which create sustained periods of noise, dust and odor should not be allowed to locate adjacent to urban areas.

OBJECTIVE G3 Restrict development to areas with few environmental hazards and minimize the loss of natural resources due to urbanization.

POLICY G3.1 New developments should be encouraged to locate in areas which are relatively free of environmental problems relating to soil, slope, bedrock and water table. Proposed development should be reviewed by the appropriate staff or consultants to identify site-specific environmental problems.

POLICY G3.2 Residential development should be discouraged within the 100-year flood plain. Under no circumstances should development be allowed in the floodway or that area which includes the center of the channel of a creek, stream or river and that area which carries the majority of the flood waters during a flood.

POLICY G3.3 New development should be encouraged to be located so as to avoid disturbing significant natural resources including prime agricultural land and potential quarry sites.

POLICY G3.4 Increased storm water runoff attributed to new development should not adversely affect downstream properties or structures.

POLICY G3.5 The County should be granted drainage easements for all major drainage ways.

Agricultural

GOAL: TO PRESERVE THE UTILIZATION OF PRIME FARM LAND FOR AGRICULTURAL PURPOSES.

OBJECTIVE A1 Discourage the premature subdivision and development of agricultural land for urban purposes.

POLICY A1.1 Follow general development policies outlined above which encourage growth around existing incorporated areas and which encourage the separation of urban and rural land uses.

Residential

GOAL: TO ENSURE DECENT AND AFFORDABLE HOUSING AND TO ALLOW FOR A WIDE RANGE OF HOUSING TYPES.

OBJECTIVE R1 Encourage the construction of housing subdivisions according to reasonable design and development standards.

POLICY R1.1 Enforce development regulations through routine and consistent inspection.

POLICY R1.2 Encourage development of residential units located within close proximity of incorporated areas to meet city design standards.

Commercial

GOAL: TO PROVIDE SUFFICIENT OPPORTUNITY FOR COMMERCIAL DEVELOPMENT AT APPROPRIATE LOCATIONS.

OBJECTIVE C1 Encourage the development of the majority of commercial establishments within the urban and urbanizing areas of Cass County.

POLICY C1.1 Encourage the development of retail businesses in the urban and urbanizing areas of the County.

POLICY C1.2 Allow for retail facilities in those areas of the County not served by retail centers only when sufficient market area populations are present or planned.

POLICY C1.3 Office development should be encouraged to locate in the urban and urbanizing areas of the County.

OBJECTIVE C2 Control strip commercial development.

POLICY C2.1 Strip commercial development should be limited to those uses directly serving the motoring public such as motels, service stations and restaurants.

POLICY C2.2 Strip commercial development should be limited to specifically identified areas on the plan and should be provided vehicular access via frontage roads wherever possible.

POLICY C2.3 Those areas containing large commercial land uses should be located on major arterial streets with careful access controls and sufficient buffers from any adjacent residential uses.

Industrial

GOAL: TO PROVIDE SUFFICIENT OPPORTUNITIES FOR INDUSTRIAL DEVELOPMENT AT LOCATIONS WITH SUITABLE ACCESS AND ADEQUATE MUNICIPAL SERVICES.

OBJECTIVE I1 Industrial development should be located so as to maximize efficient usage of the municipal services necessary for this type of development.

POLICY I1.1 Industrial sites should have access to arterial roads, preferably those leading directly to major highways.

POLICY I1.2 Industrial development should be located or designed so as to be afforded adequate water and sewer services and police and fire protection.

POLICY I1.3 Industrial development should be located so as to minimize the negative impact on the environment and on other less intensive uses.

POLICY I1.4 New industrial uses should be separated or buffered from surrounding non-industrial uses. Heavy industrial uses should be located away from existing or projected residential growth areas and opposite the prevailing winds.

- POLICY I1.5 Future industrial uses should not be allowed in areas where substantial, long-term environmental damage is likely to occur.
- POLICY I1.6 Industrial uses such as salvage yards should be located and screened so as to minimize their visual impact on the County landscape.
- POLICY I1.7 Area of potential industrial land should be reserved and discouraged from being developed as residential.
- POLICY I1.8 Industrial uses, other than those of an agricultural nature or operations which need to be in remote locations, should be encouraged to locate within existing cities.

Public and Semi-Public

GOAL: TO PROVIDE ADEQUATE GOVERNMENTAL, RELIGIOUS, EDUCATIONAL AND CIVIC FACILITIES IN APPROPRIATE LOCATIONS THROUGHOUT THE COUNTY.

OBJECTIVE P1 Encourage County-wide coordination in locating governmental, religious, educational and civic facilities.

POLICY P1.1 Public facilities such as governmental offices should be located so as to maximize their accessibility.

POLICY P1.2 Public facilities such as City, County and State maintenance yards should be located in industrial areas which contain similar types of users.

Municipal Services

GOAL: TO ENSURE THAT RESIDENTS ARE ADEQUATELY SUPPLIED BY MUNICIPAL SERVICES OR RURAL SERVICE DISTRICTS.

OBJECTIVE M1 Encourage County-wide coordination and cooperation regarding resources, supply, facilities and distribution of utility services.

POLICY M1.1 Encourage watershed protection.

POLICY M1.2 Encourage shared facilities where practical and feasible.

Transportation

GOAL: TO PROVIDE AN EASY, SAFE AND EFFICIENT VEHICULAR FLOW
WITHIN AND THROUGH THE UNINCORPORATED COUNTY AREAS.

OBJECTIVE T1 Provide a thoroughfare system which allows safe and efficient
travel from one place to another.

POLICY T1.1 Major roads should link all employment, shopping and
educational centers.

POLICY T1.2 Right-of-way and improved roadway surfaces should be
sufficiently wide and of sufficient strength to accommodate
anticipated future traffic loads.

POLICY T1.3 Direct access onto major thoroughfares should be carefully
controlled by limiting the number of curb cuts and by the
use of frontage roads for adjacent commercial and
residential land uses.

POLICY T1.4 Curb cuts should be spaced in such a way that traffic is not
impeded.

POLICY T1.5 Major new developments should not be approved until their
impact on the surrounding road system is evaluated and
it is confirmed that design capacities will be exceeded.