

Issues in Growth and the Adequacy of Public Facilities City of Lawrence and Douglas County



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Overview and Introduction

Introduction

This report has been prepared by Duncan Associates, under contract to the City of Lawrence and Douglas County. The purpose of this report is to review the concept of “Adequate Public Facilities” (APF) regulations in the context of development regulation in Lawrence and Douglas County. As the report notes, through Horizon 2020, Lawrence and Douglas County have already adopted most of the policies normally included in an APF programs, and each of the local governments has some related regulatory elements in place. This report provides examples of comprehensive programs from other states and other communities to establish benchmarks against which to measure existing and possible future programs in Lawrence and Douglas County.

Concepts

The goal of Adequate Public Facility (APF) regulations is to ensure that new development occurs only when and where there is actual facility capacity to serve that development. The leading efforts in implementing APF controls are in Florida, which has mandated “concurrency” through state law.¹ Concurrency is a comprehensive program intended to ensure that adequacy of public facilities for new development; APF regulations are one part of such a program. One commentator provides this description of Florida’s concurrency law and regulations:

Concurrency is a legislatively-enacted growth management tool for ensuring the availability of adequate public facilities and services to accommodate development. The foundation for a legally viable concurrency system is the formulation and implementation of a capital improvements plan for delivering essential public facilities in a timely manner by linking the approval of new development to the current and future availability of adequate public facilities. Ideally, concurrency regulations should seek to avoid the necessity for any moratoria on development by ensuring that both existing and planned public facilities are available as needed in light of a community's growth.... A capital improvements program must be set forth in the local government's comprehensive plan and establish both LOS standards for the facilities subject to concurrency and present the means for meeting the LOS standards. Development impacts that result in service levels below the adopted LOS standards will not be allowed.²

Note that APF regulations are only one part of concurrency – and, as the placement of the reference at the end of the quoted material suggests, it is not necessarily the most important. An effective program to ensure the adequacy of public facilities for new development must include multiple elements:

¹ Fla. Stats. §163.3180.

² Ronald L. Weaver, “Concurrency, Concurrency Alternatives, Infrastructure, Planning and Regional Solution Issues,” an article included in NELSON SYMPOSIUM ON FLORIDA'S GROWTH MANAGEMENT LEGISLATION, 12 Florida Journal of Law and Public Policy. 251. at 251-52 (Spring 2001); citation to statute, cited immediately above, and other notes omitted.

- A **comprehensive plan** for the area in which concurrency is an issue;
- **Functional plans for affected systems**, including water, wastewater, roads and other public facilities;
- A **capital improvements program** based on the comprehensive plan and showing what facilities will be built to accommodate the growth and development patterns shown in the comprehensive plan;
- A **means of financing** the capital improvements program; most communities today include some means of ensuring developer participation in financing the growth-related infrastructure costs;
- **Design- or performance-based regulations** drafted to ensure that new development will be served by adequate public facilities;
- An optional element, which is some form of **capacity allocation** when there is a shortage in a critical facility – normally water or sewer.

The bulk of this report focuses on APF Regulations, which was the interest of city and county officials in contracting for this study.

These techniques are used to ensure that new development takes place only where major facilities – typically including water, sewer and roads, but sometimes including other facilities – exist and have the capacity to absorb such development. A secondary effect of such programs is usually to encourage the outward expansion of development in an orderly pattern around existing development and facilities.

The report will, however, also include brief treatment of the following related techniques:

Impact Fees

An increasing number of local governments rely in part on impact fees to provide a partial funding source for the expansion of infrastructure. This approach can be combined with APF controls, but in some ways it represents a more proactive approach to the issue – developing funding and planning the necessary facilities.

Targeted Infrastructure Investment

A number of studies show that growth generally follows infrastructure – particularly roads and major sewer lines. These major capital investments are often more influential in shaping regional growth than zoning and other tools of plan implementation. With targeted infrastructure investment, local and state agencies acknowledge these secondary effects of their investments and target investments with the explicit plan to encourage growth in particular areas.

Growth Boundaries

A few communities have drawn a firm line around a growth area and allowed suburban-scale subdivisions, shopping centers and other development only within that boundary. Although the simplicity of the technique has a good deal of superficial appeal, it is a difficult concept to implement, particularly in a complex metropolitan area with many local governments.

Utility Extension Policies

Closely related to the concept of targeted infrastructure investment is the concept of using utility extension policies to shape growth patterns. It can be a very powerful technique where there is a single or dominant supplier of utility services – such as Lincoln, Nebraska, in Lancaster County³ – but it is a technique that can work in a complex region only with extensive regional cooperation.

Capacity Allocation Programs

When there is a scarcity of water supply or sewage treatment capacity in a region or around a community, a public supplier of that scarce service or commodity may choose to “spend” the scarce supply on development which meets other public policies – particular types of development or development that is well-located in regard to planning policies and other public facilities.

The rest of this chapter examines briefly existing policies and programs in Lawrence and Douglas County that relate to the adequacy of facilities for new development. Chapter 2 of the report provides an overview of each of the types of programs listed above, along with examples of how they have been implemented in particular communities. Chapter 3 provides a detailed policy discussion of the issues involved in implementing APF regulations for various facilities; for each facility, the material in that chapter also cites existing Lawrence and/or Douglas County policies and regulations on the subject. Chapter 4 provides specific recommendations for implementing some of the concepts discussed here, along with suggestions of additional policy discussions that should take place locally.

Recent Results of Local Policies

In general, the adopted plans and policies have been effective at encouraging most new development to occur within the City of Lawrence. As indicated in Table 1 Population Number and Change, 1990-2000, Douglas County, Kansas and Table 2 Numbers of Households and Change, Douglas County, Kansas, 1990-2000, the rate of growth in both people and households in the City has been essentially the same as the rate in the County as a whole.

Table 1 Population Number and Change, 1990-2000, Douglas County, Kansas

	2000	1990	Percent Change
Douglas County	99,962	81,798	22.21%
Baldwin City	3,400	2,961	14.83%
Eudora	4,307	3,006	43.28%
Lawrence	80,098	65,608	22.09%
Lecompton	608	619	-1.78%
Unincorporated	11549	9604	20.25%

Source: American Fact Finder; (<http://www.census.gov>)

³ There is further discussion of this program at page 49.

Table 2 Numbers of Households and Change, Douglas County, Kansas, 1990-2000

	2000	1990	Percent Change
Douglas County	38,486	30,138	27.70%
Baldwin City	1,077	902	19.40%
Eudora	1,607	1,083	48.38%
Lawrence	31,388	24,513	28.05%
Lecompton	228	212	7.55%
Unincorporated	4,186	3,428	22.11%

Source: American Fact Finder; (<http://www.census.gov>)

Note that the number of households has increased nationally more quickly than the number of persons because of the continued reduction in household size.

These results in Douglas County reflect good planning and are generally counter to the trend of exurban expansion that has occurred in most areas of the country in the last 20 years. Nevertheless, there has been an increase of 758 households in the unincorporated area of the County in just 10 years, few if any of which have sanitary sewer service other than septic tanks or access to water lines with adequate flow to fight fires. Further, there has been a continued expansion in the number of institutions – including public schools and religious institutions – in the rural areas of the County, lacking these services. Some of the institutional uses are also located on minor roads that appear to be inadequate to meet the needs of these major uses.

Purposes of the Report

Constituencies within the City and County have expressed multiple purposes for requesting this report and as many related uses for its findings and recommendations:

- Some City Commission and County Commission members have expressed concern about whether the current regulatory structure in the City and County is adequate to ensure that new development will not cause a reduction in the level or quality of services offered to taxpayers and residents;
- Members of the Metropolitan Planning Commission have expressed interest in ensuring that provisions of the comprehensive plan that call for a close relationship between new development and the expansion of public facilities;
- Planning Commission staff members have expressed concern about the adequacy of the subdivision regulations to achieve some of the expressed purposes of elected and appointed officials, particularly as those purposes related to the adequacy of public facilities to serve new development;
- The City Manager and Assistant City Managers have requested assistance in evaluating proposed changes to the City’s 1994 “Development Policy,” which deals with developer exactions;

- Representatives of service providers, particularly within the City government, have expressed some interest in ensuring that proposed developments not be allowed to get too far through the development process before major capacity issues related to development are identified; and
- Some local citizens and developers involved with the development process have expressed concerns about the consistency of application of exactions policies to developers.

Under the contract executed by the City, Duncan Associates has agreed to review in depth the existing plans, programs and regulations relating to the adequacy of public facilities to serve new development. The report should serve that purpose very well. To the extent practicable with the information gathered and analysis performed to serve that specific goal, this report has been expanded to address related areas of concern, as outlined in the bulleted list immediately above.

Executive Overview of Policies, Programs and Issues

Existing Plans, Policies and Programs

*Horizon 2020*⁴ establishes the basis for a program of “concurrency” or adequate public facilities for both the City and the County. It establishes desired Levels of Service for a number of facilities and provides a solid planning context for future investments in capital improvements in both the City and County. The many relevant provisions of *Horizon 2020* are discussed in the next chapter, beginning at page 10. A review of those provisions or of the plan itself makes it clear that both the City of Lawrence and Douglas County are committed in principle to a policy of ensuring that adequate facilities are available in a timely manner to serve new development.

The City’s Annexation Policy deals with the issue of public facilities from a different perspective, requiring annexation as a condition of obtaining City sewer, water and sanitation service.⁵ The policy, discussed below, beginning at page 21, encourages the City to be proactive in annexation of property within the growth area at or before the time that it is likely to develop.

The City also has an adopted Development Policy that establishes guidelines for developer exactions, or developer contributions to off-site improvements (this topic is discussed in more depth beginning at page 31, and the City’s specific policies are described beginning at page 33. Through this policy, the City attempts to ensure that those undertaking major new developments will provide sufficient upgrades to facilities to ensure that at least current levels of service are maintained.

⁴ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998.

⁵ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996.

In addition, the City has adopted water and wastewater “system development fees” that are used to pay part of the costs of the growth-related capital improvements to those systems (see discussion beginning at page 33).

The City has externally governed Level of Service standards for sewer (controlled by the discharge standards adopted by the state under the federal Clean Water Act) (discussed further beginning at page 54); water (controlled under the Clean Drinking Water Act as to quality and affected by Insurance Services Office standards as to flow and pressure) (discussed beginning at page 58); and fire response times (also affected by ISO rating policies) (discussed beginning at page 81).

The City and County have both adopted *Horizon 2020*, which has established “LOS D” (for an explanation of the LOS concept as applied to roads, see Figure 1) as the desired minimum Level of Service for all roads at all times (see discussion beginning at page 65). There are no specific regulations in place to implement that LOS as part of the development regulatory system, although there are some regulations that require that certain intense developments be located on relatively major streets. The County has no policies in place to implement a basic LOS for roads, and the LOS standard itself is not particularly relevant in the context of the many unpaved Township roads that provide access to most land in unincorporated portions of the County.

Next Steps

This section contains the consultant’s recommendations for “next steps” to pursue the issues that appeared to interest the Commissions as topics of further policy discussions. This section also appears at the end of the report, beginning at page 94 and will make the most sense if read there. The final chapter of the report includes a summary of policy questions identified in this report and discussed with members of the City Commission, County Commission and Metropolitan Planning Commission at an August 2002 workshop. That material, beginning at page 86, also includes the consultant’s attempt to synthesize the results of the policy discussions as they relate to each of the questions. These recommended “next steps” follow logically from the results of that discussion. Recognizing the length of the report, however, the recommendations are repeated here, near the beginning of the report, for the convenience of busy public officials who may not wish to read a 100-page report. For those with questions about the basis of the recommendations, however, a reading of other portions of the report – including particularly those policy questions and the results – should be helpful in addressing those questions.

This section contains the consultant’s recommendations for “next steps” to pursue the issues that appeared to interest the Commissions as topics of further policy discussions.

Immediate Steps

These steps are ones that can be implemented within a few months. They are based on current public policies, logical extensions of those policies, or positions apparently supported by a majority of officials in discussions of earlier versions of this report.

Improvements to Planning for Development and Public Facilities

[City] Senior city administrators should meet with the Planning Commission and its senior staff to develop a process through which the MPC can be more proactively

involved in the existing capital facilities planning process. Although the MPC currently reviews proposed facilities plan, the goal should be to involve the commission in making suggestions and actually helping to develop the plan in general conformance with Horizon 2020.

[County] Senior county administrators should meet with the Planning Commission and its senior staff to develop a process through which the MPC can become involved in the existing capital facilities planning process. With the County, also, the goal should be to involve the commission in making suggestions and actually helping to develop the plan in general conformance with Horizon 2020.

[City and County] Continue quarterly meetings with school administrators and board members and use some of those sessions to determine how school capital siting and major school construction can be coordinated with planning for roads, water, wastewater and other public facilities – so that facilities essential to support new development become available in targeted areas concurrently with that development.

[City and County] Ensure that Collector Plan, currently included in working drafts of 2025 transportation element, is adopted.

[City] Conduct a separate workshop between the City and Lawrence Public Schools to discuss whether there are ways that the City might use its existing policy of investing in roads and other improvements as a technique to lead development (or redevelopment) into some areas in which the schools currently have excess capacity.

Initial Steps in Adopting Adequate Public Facilities Regulations

[City] Formally include review of wastewater line capacity, water pressure and water fire-flow as criteria in preliminary subdivision plat review; projects with deficiencies in either service should be denied or only conditionally approved.

[City] Establish accounting system to reserve capacity in wastewater and water systems for approved projects for time period reflected in project approval, with a cushion of one to two years. Consider imposing an administrative fee to recover record-keeping costs.

[City] Adopt current planning standard of a 1-mile service radius for neighborhood parks of at least 5 acres as an APF standard to be considered as a criterion for review of residential developments at subdivision review stage. See related long-term recommendation.

[City] Require that proposed subdivisions include continuation of arterial and collector roads where they pass through or along lands proposed for subdivision; standards should allow some deviations in alignment for collector roads but should ensure continuity.

[County] Require that new institutional uses (schools, houses of worship), nursing homes, other residential uses with more than 20 residents at one location, and nonresidential uses which will regularly be occupied by 20 or more people to be located: a) along arterial roads improved to County standards; and b) within 300 feet of a water line of at least 4 inches in diameter or of a pond or lake providing a source of at least 10,000 gallons of water.

Improvements to Public Facilities Financing

[City] Maintain current Development Policy, with one immediate improvement. In dealing with roads and drainage, it should be modified to allow in selected cases a payment by a developer of a fee for development-related improvements, with the fee to be held by the City in escrow and used within a specified period as part of a larger project to implement improvements to the designated intersection[s] or road[s]. Note that the principles for handling impact fees – maintaining them in a designated fund, using them only for the specified purpose; using them within the area affected by the development, and using them within a reasonable period of time – should be followed in handling these funds. There is a long-range recommendation for the replacement of this system with a true system of impact fees for roads, but this modification would serve as an interim step toward that long-range goal.

[City] Request an update analysis of water and sewer impact fees (based on existing Black & Veatch data) to provide policy context by laying out maximum justifiable fees and a range of options below that. Note that this can and should be paid from utility funds, not City general funds.

Further (Long-Range) Steps

The steps listed here would appear to be consistent with adopted plans and policies. They will take longer than the ones listed as Immediate Steps for one of two reasons (or a combination thereof): some will require further policy discussions by public officials, because of the secondary and tertiary effects of implementing the suggested policy; some will require staff or consultant support that is not likely to be available in the current (2003) budget situation in Kansas.

Improvements to Planning for Development and Public Facilities

[City] Conduct one or more workshops involving senior utilities staff and senior planning staff with members of the City Commission and the MPC to discuss the overall planning implications of the City's decision on locating a new wastewater treatment plant. Recognizing that one location may be substantially more expensive than another, it is important to consider the relative costs and benefits of the two locations related to long-term growth patterns, as well as to the more immediate concerns with engineering, water quality and finance.

Further Steps in Adopting Adequate Public Facilities Regulations

[City] Consider supplement to the “connectivity” policy supported by requirements for continuations of arterial and collector roads by implementing pedestrian and bicycle connectivity policies for most new developments.

[City and County] Conduct one or more specific workshops with MPC and City Commission to discuss implementation of APF standards for roads, considering not only the establishment of absolute standards, but also the questions of whether those should apply 24 hours every day or make exceptions for rush hour and football and basketball weekends, and whether there should be a different set of standards for some specific locations, such as downtown.

Further Improvements to Public Facilities Financing

[City] Create an impact fee system for roads, following one of three models:

- a) Implementing the fees only in developing areas of the community, with no fee applicable to redevelopment;
- b) Implementing the fees throughout the community but imposing no fee on redevelopment of the same type of use and same number of square feet as the historic use of the site (or use on a specified date); or
- c) Creating a limited number of specific impact-fee districts to finance improvements to particular arterial roads and major intersections on those roads.

As part of the feasibility study for impact fees, examine the possibility of modifying the Development policy to provide for reimbursement or recoupment agreements with developers who provide specified capital investments, with the reimbursements or recoupments to be paid from future fees.

NOTE that it may be desirable to commission a feasibility study for the use of impact fees for such purposes. The consultant has provided these recommendations based with a good understanding of the policy and regulatory issues involved in implementing such a program but without the financial data that would be generated in such a feasibility study.

[City] Consider, in combination with impact fees, a modification to the Development Policy under which a developer proposing initial work in an area in which substantial additional development is expected may be asked to participate with the City in building facilities, or parts of facilities, meeting long-term needs in the area. This would replace the current incremental process in which a facility in the same area may be modified several times as additional developers come in. Although the primary focus on such issues at the public meetings related to roads, Utilities Department representatives expressed the need for a similar modification to the policy regarding stormwater system expansions.

[City] At a future time, authorize a feasibility study to examine the possible use of impact fees for new fire facilities. Note that this feasibility study could be combined with the one recommended next.

[City] At a future time, authorize a feasibility study to examine the possible use of impact fees for neighborhoods parks, noting that there will have to be consideration given to the level of public support for additional fees for parks purposes in light of the existing sales tax to support parks.

Review of Existing Policies and Programs

Planning

One of the great strengths of Lawrence and Douglas County in addressing the relationship between public facilities and new development is the continuing cooperation between the City and County in planning efforts. The two share a Metropolitan Planning Commission and a professional planning staff. *Horizon 2020* is the adopted comprehensive plan for both the City and the County. The City and County have jointly undertaken an updating of subdivision regulations, and both are participating in this study.

Because new development always creates pressures on the urban fringe, the only practical way to address issues of growth and public facilities is through cooperation between city and county. Although little space is devoted to this issue here, it provides a strong foundation for addressing the relationship between growth and the capacities of public facilities.

Planning for the area would be even more effective if all of the major players were involved. The most obvious parties missing from the process are the three small cities in the County – Baldwin City, Eudora and Lecompton. Of more concern, however, because it affects far more people, is the apparent lack of direct participation of the school districts in the planning efforts; there are some indications that the districts’ plans evolve independently of other local government plans.

Further, in an area where the availability of water is a major factor in shaping the patterns of growth, the lack of participation of the water service providers other than the City of Lawrence is a substantial deficiency in the system. The independent water districts provide water service within their areas without any particular regard to the comprehensive plan, and they have established very different level-of-service criteria from those used by the City. The lack of participation of the independent fire districts is also a deficiency in the plan, although their lack of participation is not as critical to fulfillment of some of the plan’s goals as the lack of participation by the water districts.

Relevant Elements of Horizon 2020

Horizon 2020 is the adopted comprehensive plan for the City of Lawrence and Douglas County. Clearly the relationship between development and the availability of public services and facilities was one of the overarching goals of such plan. Chapter 3 provides a plan overview that highlights ten “key features” of the plan. Of those, six are directly related to this issue:

- The plan supports infill development and redevelopment which provides a range of residential, commercial, office, industrial and public uses within these parcels, consistent and compatible with the established land use pattern in surrounding areas.
- The plan promotes development in the urban growth area through an adopted annexation policy which anticipates well-planned development of fringe areas.
- The plan defines the urbanizing areas of the County and directs development to these areas.

- The plan promotes the maintenance of a strong and clear distinction between the urban and rural characters of Lawrence-Douglas County. The plan defines areas anticipated to receive new urban growth near existing urban areas and establishes parameters for non-farm development in Douglas County.
- The plan defines the limits of urban growth areas for the planning period. Through adoption of an annexation policy, development can be anticipated to occur in areas most easily served by public facilities and services and future development can be scheduled in concert with planned infrastructure improvements.
- The plan recommends that the City and County consider utilizing development/performance standards for all major land development projects. Standards would give the community reasonable control over design and development, and provide developers incentives for creative and quality new development.⁶

Chapter 4 of *Horizon 2020*, is entitled “Growth Management” and focuses directly on the need to maintain a planning relationship between development patterns and the availability of public services. The plan outlines these strategies for guiding and serving future growth:

- Establish urban growth areas for all Douglas County cities. In the Lawrence urban growth area, ensure that the staging of development corresponds with the availability of facilities and services.
- For the City of Lawrence, establish urban service areas where adequate facilities and services already exist.
- For the Lawrence urban growth area, define conditions which development must meet to conform with the overall intent of the plan as identified in the Growth Management Element.⁷

Chapter 4 also outlines the City’s Urban Growth Area, dividing it into four service areas, numbered 1 through 4, with service and development priorities for those areas ranked essentially in that order – beginning with Service Area 1. Among the development and service policies for these areas are these:

Goal 1: Establish Urban Growth Areas

- Policy 1.1 Establish Residential and Commercial/Industrial Development Standards for Growth within Urban Growth Areas
- Policy 1.2 Evaluate Traffic Impact
- Policy 1.3 Limit Premature Development
- Policy 1.4 Establish Utility Extension Policy for Newly Annexed Areas
- Policy 1.5 Encourage Annexation.⁸

⁶ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 3, pp. 25-26.

⁷ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 4, p. 33.

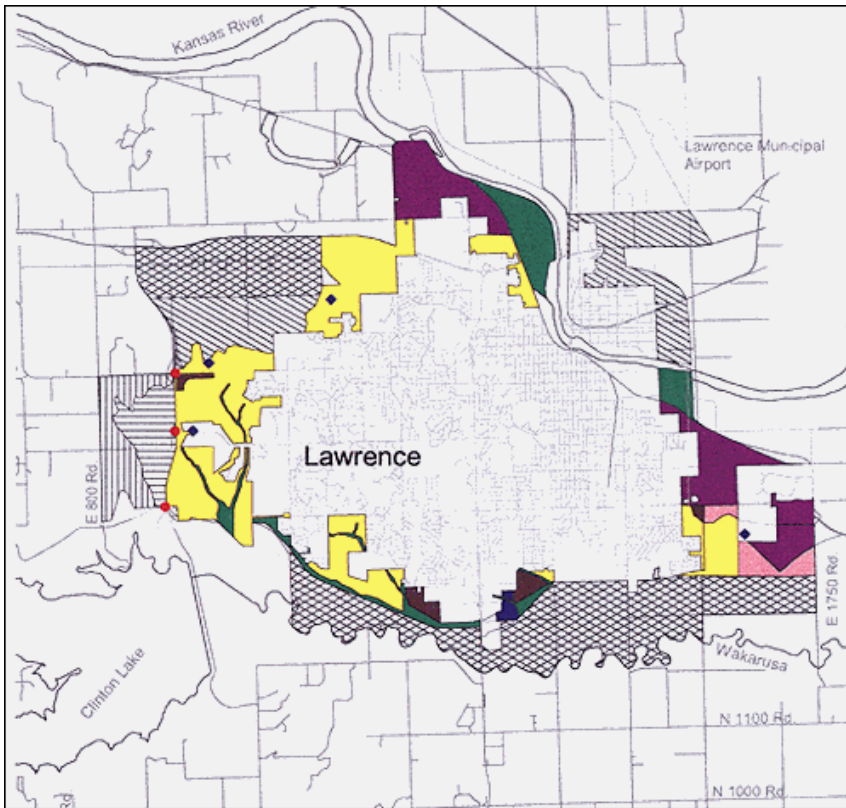


Figure 1 Urban Growth Area for Lawrence.

Chapter 5 addresses “Residential Land Use.” Among the relevant policies in that chapter are:

[Policies Related to Low-Density Residential Land Uses]

Policy 1.4: Limit Premature Development

- a. Encourage the gradual expansion of urbanization out-ward from corporate limits to avoid leapfrog development. Require annexation or agreements to annex for developments which are not contiguous to the city limits.
- b. Require subdivisions contiguous to the city limits to annex and develop to city standards.
- c. Adopt an annexation plan and policy consistent with Growth Management techniques described in this document.

Policy 1.5: Ensure Adequate Infrastructure Facilities

Develop a utilities extension policy for the City of Lawrence which ensures the phased connection of all development in its urban growth area to water and wastewater services.⁹

⁸ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 4, pp. 37-39.

⁹ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 5, pp. 53-54.

...

Policy 4.4: Limit Development Beyond Growth Service Areas.

- a. Encourage development only in or adjacent to existing growth centers and corridors in order to reduce the cost and extension of public services.
- b. Priority should be given to developments proposed in conformance with adopted Plans for, infrastructure extensions.

Policy 4.5: Ensure Adequate Infrastructure Facilities

Encourage the development of housing to be located in areas to maximize the use of existing infrastructure and minimize the cost of expanding community facilities and services.

Policy 5.4: Ensure Adequate Ingress and Egress.

- a. The site design of a residential development should accommodate multiple points of access (direct and indirect), with attention to directing vehicular traffic to and from a development to collector and/or arterial streets.
- b. Provide sidewalks on one side of local streets and both sides of collector and arterial streets.¹⁰

....

[Policies Related to Medium-Density Residential Development]

Policy 1.4: Limit Development Beyond Growth Service Areas

Encourage the development of housing to be located in areas to maximize the use of existing infrastructure and minimize the cost of expanding community facilities and services.

Policy 1.5: Ensure Adequate Infrastructure

Ensure that medium- and higher-density development occurs in areas which can be adequately and efficiently served by infrastructure facilities.¹¹

Chapter 6 addresses policies for commercial development. Much of the focus of the chapter is on maintaining downtown Lawrence as the dominant commercial center for the planning area. Policy 1.4 in Chapter 6 discusses the redevelopment of existing commercial areas, a strategy which clearly builds on existing infrastructure.¹² Goal 3 focuses on the location of commercial development. Among the most pertinent policies included there are the following:

¹⁰ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 5, p. 58.

¹¹ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 5, p. 63.

¹² *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 6, p. 83.

Policy 3.1: Utilize Locational Criteria for Commercial Development

- a. Commercial Nodes: Nodes should occur at arterial and collector intersections. Commercial areas should be designed so that no direct vehicular access is provided between them and abutting residential areas.

...

- d. Vehicular Access: Limit the principal vehicular access of commercial development to arterial, collector or frontage (access) streets.

...

Policy 3.2: Utilize Locational Criteria for Neighborhood Centers

- a. Use the following criteria in reviewing commercial development requests:

- 1. Limit neighborhood centers to one corner of the intersection of arterial and/or collector streets and generally be 2-10 acres in size.
- 2. Locate office, public, semi-public, parks and recreation or medium- and higher-density residential developments on remaining corners of intersection to avoid excessive concentrations of commercial traffic and unnecessary duplication of commercial services.
- 3. Low-density residential uses may be located at remaining corners if sufficient screening measures to offset noise and views of the intersection are provided.

...

Policy 3.3: Utilize Locational Criteria for Community Centers

- a. Use the following criteria in reviewing commercial development requests:

- 1. Limit development of community commercial centers to designated intersections of arterial and collector streets and limit total nodal development to not more than 10-0 acres at an individual intersection.

....

- 3. Corners of designated intersections not developed with commercial uses should be utilized for office, employment-related uses, public and semi-public uses, parks and recreation, and with extensive on-site screening, higher-density residential uses. Encourage the development of mixed-use centers (office, employment-related uses, public and semi-public uses) adjacent to community commercial development to provide mutual attraction to employees and retailers and to enhance the visual image of the area.

....

Policy 3.5: Utilize Locational Criteria for Regional Commercial Centers.

- a. Use the following criteria in reviewing requests for regional commercial centers:

1. Limit development of regional commercial centers to the intersection of two principal arterials or the intersection of a principal arterial and an expressway or a designated state or federal highway.
2. Access to the center should be distributed to more than one thoroughfare, by direct or frontage road access, based upon access management policies.

...

Policy 3.6: Utilize Locational Criteria for Commercial Development in Unincorporated Areas

- a. New sites should be adjacent to a state or federal highway and at the intersection of county routes with state or federal highways.
- b. Encourage new commercial development at key access points on major corridors only if provided by adequate infrastructure, community facilities and services.

...

- d. New commercial development should be located in the urban growth areas to ensure adequate services and facilities can be provided.¹³

Goal 4 in Chapter 6 focuses on the impacts of commercial development on transportation systems. Among the key goals are these:

Policy 4.1: Levels of Service

The expansion of existing or new commercial development shall not occur until the surrounding street system can provide an acceptable level of service.

Policy 4.2: Evaluate Traffic Impacts

An evaluation of the traffic impacts of a development on the surrounding area should consider the existing and projected traffic conditions and their impact on the existing transportation system and should be based on planned improvements which are identified in the *Capital Improvement Plan (CIP), the Comprehensive Plan, or the Long-Range Transportation Plan. The Capital Improvement Plan, the Comprehensive Plan, and the Long Range Transportation Plan* shall be updated, periodically to recognize changes in Priorities and to add new projects with designated priorities.

Policy 4.3: Minimize Traffic Diversion

- a. Prohibit direct vehicular access from commercial developments to local residential streets.
- b. Discourage commercial traffic through residential neighborhoods.

¹³ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 6, pp. 88-90.

Policy 4.4: Ensure Adequate Ingress and Egress

- a. Limit the principal access of commercial development to arterial, collector or access/frontage streets.
- b. Commercial development nodes should provide a minimum of two access points.
- c. Develop ways to improve access to downtown and other commercial centers within the community through improved bike and pedestrian paths; bus access (loading/unloading) and parking areas; public transportation; and vehicular access.

Policy 4.5: Limit Access

- a. Minimize curb cuts along arterial and collector streets.
- b. Encourage shared access between adjacent commercial developments. Plan for coordinated traffic circulation within proposed development areas.
- c. Lot access and street configurations should be designed to avoid curb cuts and local street intersections on arterial streets and coordinate access with adjacent developments.¹⁴

Chapter 7 addresses industrial development. Goal 3 deals with locational criteria; the major focus of the locational criteria is on conformance with the future land-use map, which was developed to locate industrial sites along major roadways. Goal 4 deals with transportation considerations and reiterates many of the policies established in Chapter 6 for commercial development (quoted immediately above).¹⁵

Chapter 8 deals with the transportation system. The key policies are these:

Policy 2.6: Acceptable Levels of Service (LOS)

- a. An overall level of service D (LOS D) or higher should be maintained at signalized intersections during the a.m. and p.m. peak hours of operation. For intersections on principal arterial streets however, the principal arterial through traffic movements should maintain as close to a level of service C (LOS C) as possible or higher during a.m. and p.m. peak hours of operation.
- b. The desired level of service (LOS) may be achieved by increasing street and intersection capacity and/or reducing vehicular traffic demand. Within urban areas, issues of transportation performance (LOS) may need to be balanced with issues of urban design, development or redevelopment, and land use functionality.

Policy 2.7: Traffic Impact Analysis

¹⁴ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 6, pp. 91-92.

¹⁵ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 7, pp. 103-04.

An evaluation of the traffic impacts of a development on the surrounding area should consider the existing and projected traffic conditions and their impact on the existing transportation system and should be based on planned improvements which are identified in the *Capital Improvement Plan (CIP)*, *the Comprehensive Plan*, or *the Long-Range Transportation Plan*. *The Capital Improvement Plan*, *the Comprehensive Plan*, and *the Long Range Transportation Plan* shall be updated periodically to recognize changes in priorities and to add new projects with designated priorities.

....

Goal 3: Access Management Goal

Promote the mixture of planning, design, traffic operations, and administrative actions to coordinate roadway access in order to maximize safety and mobility while reducing delays to travel.

Policy 3.1: Access to Low Density Residential Areas

- a. The site design of a residential development should accommodate multiple points of access (direct and indirect), with attention to directing vehicular traffic to and from a development to collector and/or arterial streets.

...

Policy 3.2: Access to Multi-Family, Commercial, and Industrial Areas

- a. Site design of developments should accommodate multiple points of access (direct and indirect), with attention to directing vehicular traffic to and from a development to collector and/or arterial streets.
- b. The spacing between driveways to commercial, industrial and multi-family residential developments should be based on: the designated functional classification of the adjacent street; projected traffic volumes of the adjacent street; topography and physical features of the site; and, the trip generation rate(s) or the traffic volumes from the proposed land use.

...

Policy 3.3: Access Alignment

- a. On principal arterial streets, commercial, industrial or multi-family residential developments should consolidate driveways at 1/8 to 1/4 mile locations, and should align them with driveways and streets on the opposite side of the principal arterial thoroughfare or off-set them at least 150'.¹⁶

....

¹⁶ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 8, pp. 116-22.

The plan also includes goals for increased reliance on mass transportation and bicycle and pedestrian trails.¹⁷ Because it is not realistic to consider APF regulations for such facilities, those goals are not discussed further here.

Chapter 9 deals with plans for park and recreation facilities. It includes the following standards for determining the adequacy of park and recreation land:

1. *Neighborhood Parks* – include tot lots, play lots, play fields, ball fields, and other active recreational uses. Neighborhood parks are intended to serve approximately 1,500 to 2,000 households.
2. *Community Parks* – are large scale recreational areas for organized sports and special activities. A community park should be provided for each 5,000 households.¹⁸

Policy 2.3 under that heading requires:

Continue to encourage land donation and/or cash payment in lie of land donation as part of the subdivision process.¹⁹

Chapter 9 deals with community facilities other than transportation. On the subject of education, the plan suggests the need for at least one additional school site in the Urban Growth Area.²⁰ In general, the plan suggests a policy of cooperation among the City, County and the eight school districts providing educational services to students in various part of the County.

Regarding utilities, that chapter suggests strategies that include the following:

- Plans should emphasize utility improvements and extensions that provide the highest level of service within existing service areas, particularly public water and wastewater treatment and collection. Costs which are associated with the accelerated timing of the extension of utilities into new development areas should ultimately be borne by the developments requiring these facilities.
- Adoption and implementation of a utility extension policy for the City of Lawrence will guide the sequencing of appropriate future development areas within the urban growth area.

As an on-going planning priority, the City will continue to search for ways to secure additional raw water rights to serve the community.²¹

Regarding stormwater management in the City, the plan indicates:

¹⁷ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 8, p. 123-25.

¹⁸ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 9, p. 128.

¹⁹ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 9, p. 132.

²⁰ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 137.

²¹ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 146.

The City seeks to utilize a "nonstructural" approach to stormwater system design and improvement. A nonstructural approach seeks to minimize the use of underground structures or other forms of enclosure to convey stormwater. It encourages the use of natural drainage corridors, or possibly relocated drainage corridors, minimizing disruption to natural drainage patterns. There are situations which will unavoidably require the enclosure of the drainage system, particularly for much of the existing community. However, new development areas offer the opportunity to use a nonstructural approach.²²

For stormwater management in the County, the plan suggests development of improved stormwater management regulations for more intensive development.²³

For wastewater treatment in the City, the plan provides:

Most existing developed areas of the City of Lawrence are adequately served with wastewater collection and treatment facilities. The few remaining areas that are not served are expected to be connected to the treatment system over the planning period. The City currently maintains a single wastewater treatment plant located along the south side of the Kansas River at East 8th Street. The treatment plant's current capacity of nine million gallons per day (gpd) will be upgraded to include another 4.5 million gallons (total of 13.5 gpd) in the next few years to accommodate some level of new development and stabilize service to existing developed areas.

These improvements alone, however, will not provide the sewage treatment capacity required to meet the development needs over the planning period. Service Area 1, as identified in *Figure 9, Lawrence Urban Growth Area*, indicates the potential increase in the size of the urban growth area from the existing wastewater treatment boundaries. In the long-term there appears to be a need for a second wastewater treatment plant. Two possible locations have recently been considered: south of the Wakarusa River near Highway 59, and east of the City near the Kansas River....

The Baldwin Creek drainage area in the far northwest portion of the growth area cannot be easily served under current wastewater treatment expansion plans.... Additional system improvements will be needed downstream to increase capacity to accommodate the flow that will be pumped over the ridge.

Alternatively, a new wastewater treatment plant could be developed at the Kansas River and provide a gravity flow collection system to serve the area.

The Plan recommends development to be permitted in areas near roadways where gravity flow wastewater collection facilities can be improved....²⁴

²² *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 147.

²³ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 149.

²⁴ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, pp. 147-48.

The plan contains no policies related to wastewater treatment in the unincorporated portions of the County, which relies almost entirely on septic tanks.

For water supply in the City, the plan provides:

The City of Lawrence owns and maintains water treatment and distribution facilities which serve the City and a variety of areas within the County. The City's water comes from the Kansas River at the 3rd and Indiana Street water plant and at the Clinton Lake water plant. Together, these plants have a capacity to provide a total of 27.5 million gallons of water per day. The capacity of these plants is deemed adequate to serve the needs of the City over the planning period. The water distribution system within existing developed areas of the City is also generally considered adequate at this time. The system can be expanded to undeveloped portions of the urban growth area in the future.

The City also extends its water facilities and services to a number of unincorporated areas of Douglas County and to the City of Baldwin. The City contracts to treat water it draws through its treatment facilities with Rural Water Districts [Dg. Co. RWD 1, 2, 4, 5, 6 and Jeff. Co. RWD 13] operating in the county. The boundaries of these districts and major facilities are illustrated in the *Rural Water Districts Map* in the *Horizon 2020 Background Studies*.

For the future, continued access to raw water resources poses a threat and challenge for the City. Water right claims by other public and private interests "upstream" on the Kansas River may have an influence on the quantities of water available to the City in the future. Because these issues are tied to water rights issues throughout the State of Kansas and adjoining states, it is difficult to plan for local solutions at this time. The strategy recommended is to continue involvement in state level discussions concerning the interests of Douglas County and to pursue other additional regional water resources including Perm Lake.²⁵

Regarding water supply in unincorporated portions of the County, the plan provides:

Douglas County will continue to be served by private wells and rural water districts. These districts include Douglas County districts 1, 2, 3, 4, 5, 6; Jefferson County districts 5 and 13; and Osage County district 5. Because most of these districts rely on raw water resources through contracts with the City of Lawrence, the districts will also be concerned with the continued provision of raw water resources in the future. The rural water districts and the City of Lawrence should collaborate in efforts to maintain adequate accessibility to this important resource.²⁶

Chapter 10 of *Horizon 2020* includes a number of policies related to community facilities. Most of those simply restate policies quoted above. There are two policies that do not arise in other sections of the plan, however. Both relate to the location of institutional facilities:

²⁵ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 148.

²⁶ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 149.

Policy 2.2: Utilize Locational Criteria for Churches and Other Religious Facilities

- a. Locate churches and other high-traffic uses at the periphery of neighborhoods to facilitate compatible uses and provide direct access to arterial, collector or access/frontage streets.
- b. Encourage the shared use of parking facilities/open space with neighborhood uses.

Policy 2.3: Utilize Locational Criteria for Public and Private School Facilities

- a. Locate schools to facilitate pedestrian access.
- b. Locate secondary schools to provide direct vehicular access to arterial or collector streets.²⁷

Annexation and Related Policies

The City of Lawrence deals with new development in part through an adopted “Development Policy.”²⁸ That policy addresses the use of special benefit districts for financing new infrastructure, policies for the extension of water and sewer service, and cost allocations between the City and developers for infrastructure development.²⁹ There are specific references to the policy in relevant places throughout this report.

The City has also adopted an “Annexation Policy.”³⁰ Key elements of that policy:

- Require annexation as a condition of receiving City sewer, water or sanitation services³¹;
- Encourages annexation of properties in the growth area prior to development of those properties³²;
- Essentially encourages the City to encourage petitioning property owners to annex their entire holdings, rather than just pieces of them³³;
- Addresses the payment of reimbursement costs to affected rural water districts³⁴; and

²⁷ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 152.

²⁸ “A Resolution Establishing The Development Policy For The Financing Of Public Improvements,” Res. No. 5614, April 19, 1994.

²⁹ City staff is working on a draft of a new development policy; although a draft was provided to the consultant, we have relied on the adopted version of the policy.

³⁰ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996.

³¹ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996, Sect. 5.

³² “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996, Sect. 6.

³³ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996, Sect. 4.

- Provides for the City to encourage annexation of or unilaterally annex property where necessary to eliminate enclaves (unincorporated territory completely surrounded by the City) and to square off City boundaries.³⁵

Capital Improvements Programs

The City of Lawrence has a Capital Improvement Plan adopted by the Lawrence-Douglas County Metropolitan Planning Commission. According to the plan document adopted May 23, 2001:

The Capital Improvement Plan and Capital Program are prepared annually from lists of projects and improvements submitted or suggested by the public or the various city departments and agencies. The projects submitted to the Planning Office, acting as the program coordinator, are reviewed based upon the comprehensive plan and the availability of funding. The projects are then reviewed by the Capital Improvement Administrative Committee, which submits a preliminary Plan and Program to the Planning Commission.

The Planning Commission reviews the preliminary plan and program for consistency with the comprehensive plan and then submits a tentative plan and program to the City Commission for consideration. The City Commission either accepts the plan and program, with or without amendments, or rejects it.³⁶

Douglas County also has an adopted Capital Improvements Program, although the version furnished to the consultant was essentially a five-year rolling plan with provisions indicating the carry-over of costs for multi-year projects that will require funding beyond that period.³⁷ It is unclear from the information provided whether the Metropolitan Planning Commission becomes involved in developing or reviewing that CIP.

Regulatory Provisions

The City-County Subdivision Ordinance currently provides:

PARKS, PLAYGROUNDS, SCHOOLS, OPEN SPACE, PUBLIC FACILITIES

The planning commission shall encourage the donation, reservation, or dedication of sites for parks, playgrounds, schools, open space and other public facilities.³⁸

The City-County subdivision ordinance also includes these provisions:

WATER SUPPLY

³⁴ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996, Sect. 2.

³⁵ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996, Sect. 3.

³⁶ “Capital Improvement Plan, 2002-2007, 2002 Capital Program,” Adopted by the Lawrence-Douglas County Metropolitan Planning Commission on May 23, 2001.

³⁷ The document received was an undated spreadsheet headed “Non-Sales Tax Projects” and listing projects for years 2001 through 2006.

³⁸ City of Lawrence, Subdivision Ordinance, §21-604.

Before approval of a final plat, the subdivider shall provide written documentation to the Lawrence-Douglas County Health Department that a public water supply is provided for all lots. If a public water supply is not available to the subdivision, any alternate water supplies must be approved by the Lawrence-Douglas County Health Department. Upon plat approval for land located within the Primary Urban Growth Area, the subdivider must sign an agreement to connect to a public water system when public water lines are within 1000 feet to planned improvements on the property. When water wells are constructed, they shall be constructed in accordance with the "Manual of Recommended Standards for Locating, Constructing and Equipping Water Wells for Rural Homes," Bulletin 4-1, of the Kansas State Department of Health, March, 1971, as may be amended. Subdividers are required to consult with the appropriate Township Fire Department and Rural Water District to determine if the provision of fire hydrants as part of the public water supply system is feasible. In those cases where the provision of fire hydrants as part of the public water supply system is determined to be feasible, it must be provided. Evidence shall be submitted with the final plat showing compliance with the requirements of this section.³⁹

The City-County Subdivision regulations include this provision related to sewage disposal:

SEWAGE DISPOSAL SYSTEMS

Septic tanks are prohibited on any land which is platted under these regulations and is located in the city, or in that part of Douglas County designated by map as the Primary Urban Growth Area. Community sewage collection and treatment facilities (including lagoons) shall be provided for any such land and shall be approved by the Kansas Department of Health and Environment and shall be designed to allow for future connection to a public sewer system. Maintenance of such facilities shall be provided by a corporate homeowner's association, benefit district, or other appropriate entity. Evidence shall be submitted with the final plat showing the establishment of such an entity to be responsible for maintenance and management of the system. Septic tanks are permitted on tracts of three acres or more platted under these regulations and located in that part of Douglas County designated by map as the Suburban Growth Area. Septic tanks are also permitted on lots of two acres or more in subdivision developments in the rural area of Douglas County.⁴⁰

The City of Lawrence Zoning Ordinance includes the following general standards applicable to new development through the site-plan review process, which applies to most developments of significant size:

SAME [SITE PLAN] CONDITIONS OF APPROVAL

Before making a report to the city commission, the planning staff shall first find that the following conditions have been met:

...

³⁹ Subdivision Ordinance, §21-707.

⁴⁰ Subdivision Ordinance, §21-706.

- (b) That the proposed arrangement of buildings, off-street parking, access, lighting, landscaping, and drainage is compatible with adjacent land uses;
- (c) That the vehicular ingress and egress to and from the site and circulation within the site provides for safe, efficient and convenient movement of traffic not only within the site but on adjacent roadways as well;
- (d) That the site plan provides for the safe movement of pedestrians within the site;

....⁴¹

In addition, the City Zoning Ordinance restricts the location of some commercial developments by requiring access onto certain classes of streets:

COMMERCIAL ACCESS TO LOCAL, COLLECTOR AND ARTERIAL THOROUGHFARES

Development in C-4 (General Commercial) and C-5 (Limited Commercial) districts shall be designed and encouraged, whenever possible, to share direct or indirect access to arterial or collector thoroughfares through common curb cuts or private frontage roads with the exception that, when the development property abuts a controlled intersection, access may be taken from a side street.

Development in C-2 (Neighborhood Commercial) districts shall have primary access restricted to arterial or collector thoroughfares. Indirect access to local thoroughfares is allowed when it is from a private/public frontage road or is a secondary site access drive.

Development in C-1 (Inner Neighborhood Commercial) districts is restricted to collector or arterial thoroughfares and to public alleys (if they abut the property being developed).⁴²

Separate provisions require that a mobile home park and an ambulatory (outpatient) surgery center each have direct access to an arterial or collector street.⁴³

Note that the City’s Development Policy⁴⁴, serves as a guideline for allocation of infrastructure costs between the City and private developers; the City administration follows it in dealing with infrastructure expansion related to new development. Because it has been adopted as a resolution rather than an ordinance, it serves as an adjunct to the regulatory process..

Exactions

The City of Lawrence has a history of charging “system development charges” for both the water and wastewater system. In 2002, the water system development charges for a residence

⁴¹ City of Lawrence, Code of Ordinances, §20-1432.

⁴² City of Lawrence Zoning Code, §20-1224.

⁴³ City of Lawrence Zoning Code, §20-1423(d) and 20-1458(a).

⁴⁴ “A Resolution Establishing The Development Policy For The Financing Of Public Improvements,” Res. No. 5614, April 19, 1994.

range from \$375 for a 5/8-inch meter to \$4,670 for a 2-inch meter, with a charge of \$1,010 for a 1-inch meter. 2002 residential sewer system development charges are \$490.⁴⁵

The City Zoning Ordinance includes a provision that allows the City to accept a signed agreement not to protest the creation of a benefit district to pay for a needed facility as an alternative to requiring a developer to provide a particular facility.⁴⁶

⁴⁵ City of Lawrence, Ord. No. 7138.

⁴⁶ City of Lawrence, Code of Ordinances, §20-1433.1.

Overview of Programs by Categories

Comprehensive Concurrency Program

Description

Concurrency regulations focus on the relationship between public investments in infrastructure and new development that will depend on that infrastructure. Concurrency is currently state law in Florida. The state mandated concurrency program in Florida requires that local governments plan for the infrastructure necessary to serve planned growth, development financing mechanisms for those plans, and then manage development to ensure that demand from the development comes on-line “concurrently” with the capacity in the affected public facilities.

A local government with adequate public facilities controls requires that adequate basic services and facilities be provided at the same time as, or concurrent with, any new development. While land development regulations have historically been used as means of ensuring that residents and end users of a development project can be adequately served by community facilities, adequate public facilities standards go further, by ensuring that new development will not cause unacceptable reductions in service for existing area residents.

Example: Broward County, Florida

Broward County’s concurrency program has been in place since 1989. The county land development code requires that an application for development approval comply with at least ten APF requirements. These include:

- Adequacy of regional roadway network
- Adequacy of major road rights-of-way
- Access to major and collector roads
- Surface water management
- Potable water supply
- Wastewater treatment
- Solid waste collection and disposal
- Regional and local parks
- School sites and buildings
- Fire and police protection

In Broward County, applications for new development must meet concurrency standards within compact deferral areas (CDAs). A CDA is an area extending for one mile on either side of an overcapacity road link, and one-half mile beyond each end of the link. Within each CDA, no development permit may be issued for a project unless (1) it is located within an area designated for urban infill on the Broward County future land use map; (2) the proposed development does not place any additional trips in the CDA road links; (3) the development consists of one single family home or duplex on an previously-platted lot; (4) the development is very small and meets the requirements for a *de minimus* exception; (5) improvements to the overcapacity roadway are under construction, under contract, or funded by a State or local government; (6) improvements to the overcapacity roadway are provided for in a development agreement, and will be available prior to the issuance of certificates of occupancy; (7) the proposed development is found to have vested rights with regard to any affected road segments; (8) the proposed development is a recipient of trips transferred from an adjacent plat, which

have been approved or vested prior to February 1, 1994; or (9) there is an Action Plan approved by the County Commission to accommodate the traffic impacts of the development.

Source: (<http://www.co.broward.fl.us/dmi01100.htm>)

Broward County publishes a map of CDAs on a monthly basis, however it is often obsolete soon after its release this can cause a certain degree of uncertainty in the development review process.

Benefits

The benefits of a concurrency program almost go without saying – a properly administered program should ensure that public facilities are never seriously over-loaded, except as a result of some unforeseen catastrophe or other unusual circumstances. Concurrency as implemented in Florida combines the growth-shaping power of investments in new capital facilities with the regulatory authority included in APF regulations. As such, it is one of the most logical and most powerful systems of plan implementation.

Disadvantages

The most serious disadvantage to the use of concurrency arises in a complex metropolitan area, where some local governments may adopt such regulations and others may not. Although the concurrency program is likely to be effective in maintaining the quality of life in the community adopting the program, local residents may still feel the effects of unmanaged growth in adjoining communities. Traffic, in particular, may not be locally controllable. Improvements in traffic flow through one suburban community may simply encourage additional development in the next ring of suburbs, with the traffic from those new developments still flowing through the community that has tried to manage its future with a concurrency program.

Local Notes

Clearly one of the overarching goals in the preparation of *Horizon 2020* was to ensure that new development would occur primarily where public facilities are available to serve it. Growth clearly is a factor driving the Capital Improvements Plan as well as separate plans for the water and wastewater systems of the City. The City relies on its Development Policy as a basis for requiring developers to provide facilities needed as a result of the probable impacts of a particular development.⁴⁷ All of these policies are consistent with a concurrency approach.

The current approach, however, is piecemeal rather than comprehensive. Further, little of it is adopted in ordinance form, and it is only partially integrated into the development regulations of the City and County. Also of concern is the fact that the multiple players involved in providing water, fire protection and public schools make independent decisions, and not all of those appear to be consistent with *Horizon 2020* or coordinated with the concept of concurrency.

⁴⁷ “A Resolution Establishing The Development Policy For The Financing Of Public Improvements,” Res. No. 5614, April 19, 1994.

Adequate Public Facilities Controls and Concurrency

Description

Adequate public facilities or concurrency regulations focus on the relationship between public investments in infrastructure and new development that will depend on that infrastructure. Most local governments require that there be adequate sewer or water capacity before a particular building is connected to the system – an APF system goes a step beyond that, trying to shape the region and base development approvals on the current or near-future availability of capacity to serve them.

Multiple Examples

The APF programs adopted in several jurisdictions are summarized in Table 3, which follows this page.

Benefits

As with a concurrency program, a properly administered APF program should ensure that public facilities are never seriously over-loaded, except as a result of some unforeseen catastrophe or other unusual circumstances. When combined with a targeted capital investment program, it is one of the most important and most logical of plan implementation tools. In general, APF controls will encourage growth that is contiguous to existing communities and other growth centers.

Disadvantages

There are no serious disadvantages to an APF system for sewer, water or stormwater, except where the effect may be to divert development to some other nearby community with lower standards and worse facilities. APF programs for roads are complex to implement because of the peak nature of travel demand. Further, imposition of stringent road-based APF controls by a close-in suburb may simply encourage development to move further out, with traffic from the new development still traveling through the same suburb. Although superficially appealing to frustrated parents, implementation of APF controls based on school capacities is difficult from both policy and legal perspectives.

Local Notes

As described in the overview of local programs, beginning at page 3, above, and, in somewhat more detail, in the evaluation of individual types of APF programs, beginning at page 26, below, *Horizon 2020* includes many specific policies addressed to the issue of the adequacy of public facilities to serve new development. A few of those have been implemented through ordinance provisions dealing with the location of particular types of land uses, but there are no performance-based APF standards in the local ordinances.

The City of Lawrence has at times used development moratoria in specific locations, based on concerns about the adequacy of public facilities to serve the proposed development. Examples given by the City administration include:

- a limited prohibition on building permits north of Peterson Road between North Iowa and Kasold until Peterson Road was improved;

- a limited prohibition on building permits for the Spring Hill development at Monterey Way and Peterson until Monterey Way is improved; and
- a prohibition on annexation and development for property east of O'Connell Road until O'Connell Road is improved, and necessary water and wastewater improvements are made.

Note that two of these actions affected building permits. Most APF programs focus on stopping development earlier in the process to avoid creating partly built developments that are then subject to building moratoria. The limitations on annexation and development along O'Connell Road provide a good example of the use of a moratorium to stop development in an area that faces capacity problems in key facilities.

Note that there appears to be no formal record of these moratoria. Although they appear to have been soundly rooted in policy, there are significant legal risks in implementing a moratorium administratively or informally, rather than through an ordinance, adopted by the governing body and supported by appropriate findings.

Table 3 Adequate Public Facilities Regulations in Selected Jurisdictions

	Roads	Other Transportation	Water	Sewer	Storm-water	Parks	Schools	Public Safety
Harford County, MD	L		G	G			L	
Montgomery County, MD	L	L	D	D			L	D
Rockville, MD	L		G	G	G	G	G	
Colorado (enabling act for counties)	G/D		G	G				
Florida (concurrency regulation)	G*	G*	G*	G*	G*	G*	G*	G*
Orange County, FL	L	L	L	L	L/D	L	L	L

Legend:

- L Ordinance or law contains a measurable **Level**-of-service standard
- D Ordinance or law contains a **Design** standard intended to ensure the adequacy of that service
- G Ordinance or law contains a **General** policy statement regarding the adequacy of the facility
- G* State law is general but directs local adoption of more specific standards

Reference Sources:

Colorado: Colo. Rev. Stats. §§30-28-133(6) and 30-28-133.1.

Florida: Fla. Stat. § 163.3180; implemented through Rule 9J-5 of the Administrative Code of Florida.

Harford County: Zoning Code §267-104, available at <http://www.generalcode.com>

Montgomery County: APF standards are actually contained in the Growth Policy, adopted by the County each two years. The current policy is available at <http://www.mc-mncppc.org/development/agp/agp-adopted.shtm> . The policy is given legal effect through various provisions of the Montgomery County Code; see especially §33A-15, 8-31, available at http://www.amlegal.com/montgomery_county_md/

Rockville: Rockville Code §25-727(e); available at <http://www.generalcode.com>

Orange County: Code of Ordinances, Chapter 30, Art. XII, available online at <http://www.municode.com> .See especially §30-520

Exactions and Impact Fees

Description

Developers have long been expected to provide basic improvements within their subdivisions – in cities, those improvements typically include paved roads, curb and gutter, sidewalks, utility lines, street signs and even amenities like street trees. Mandatory contributions by developers to off-site improvements or community-wide facilities are generally called “exactions.”

Exactions may take the form of direct improvements by a developer (such as widening and paving a road that forms the boundary to a proposed development), land dedications for future improvement by the local government (a technique commonly used for parks and sometimes for schools), or “fees in lieu” of dedication of such facilities.

The most modern form of exactions is the “impact fee” (also known as development impact fees, system development charges, and the capital expansion component of connection charges); such fees are assessments levied on new development to help pay for the construction of off-site capital improvements that benefit the contributing development. Impact fees are typically assessed using a fee schedule that sets forth the charge per dwelling unit or per 1,000 square feet of non-residential floor space. In communities like Lawrence, that use such fees only for sewer and water services, the fees are typically based on the size of the water meter, which is generally related to the amount of impact on the system. Impact fees are one-time, up-front charges, with the payment usually made at the time of development approval, although some jurisdictions allow extended payments over a period of years.

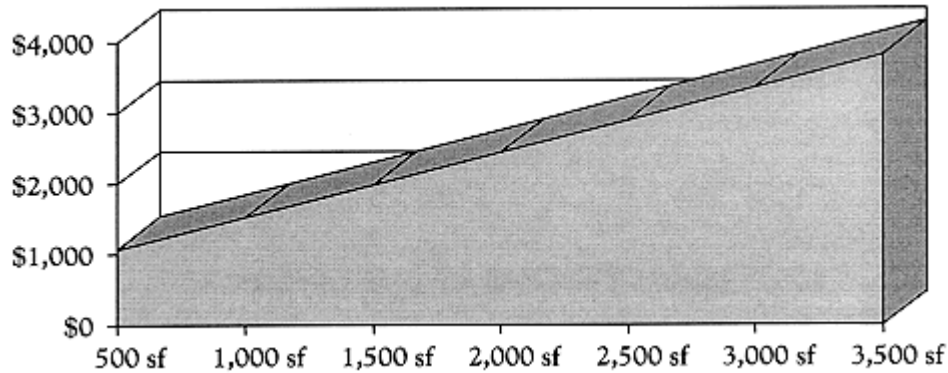
Communities that make more extensive use of impact fees sometimes adapt them to address other policy issues. For example, a road fee might be applied to newly developing areas but not to development in the urban core that is of the same scale and intensity as that for which the area was planned. Such a variable approach is economically sound (the infrastructure to serve the core development is already there) and it can encourage redevelopment in core areas.

Example: Miami/Dade County, Florida

Enrollment in the Dade County public school system, the fourth largest in the nation, had been increasing at over five percent per year for more than a decade. By the early 1990s, over 40 percent of all its students were being educated in 2,300 portable units, and school overcrowding had become a serious local political issue.

Determining the capital cost to accommodate new students was the first step in calculating school impact fees for the district. This step involved an examination of all recent capital expenditures for educational facilities, buses, portables and maintenance buildings. School facility costs were analyzed in terms of land, construction and FF&E (furniture, fixtures and equipment). Average costs per student were determined to be \$12,055. Since so many of its students were located in portable units, costs were adjusted by a “utilization factor” to take into account overcrowding (pre-existing deficiencies). Three forms of credit were calculated: state funding for capital facilities, property taxes from local option mileage levies and property taxes from school bond issues. After deducting credits from costs, the net local capital cost per student station was calculated at \$3,829. To address housing affordability, fees were based on unit size (bedrooms and square footage, using regression analysis of current housing data from tax records). To determine the demand that new dwelling units place on the classroom, a

formula based on a logarithmic regression equation relating to unit size or floor area was used. A range from 500 to 3,800 square feet per unit was selected, and fees yielded by the equation were calculated by charging a “base” fee of \$600 per unit, plus 90 cents per square foot. The resulting impact fee schedule ranged from \$1,071 (500 square foot unit or smaller) to \$4,100 (3,800 square foot or larger).



Since its adoption in 1995, the Miami school fee has accounted for about \$15 million annually in added revenues for the district to spend on new capital facilities.

Example: Reno/Sparks/Washoe County, Nevada

A multi-jurisdictional regional road impact fee system was designed for the cities of Reno and Sparks and Washoe County. The system, which established a single, county-wide road impact fee, was jointly adopted by all three jurisdictions in 1996. One year before it adopted impact fees, Washoe County also adopted a nine-cent per gallon gas tax. Prior to the regional fee, Reno and Sparks both had their own road impact fees. While the County had evaluated the possibility, it had never before adopted a road fee. Upon adoption of the regional fee, existing municipal fees were repealed.

The regional road fee is coordinated through an intergovernmental agreement administered by the Regional Transportation Commission (RTC) of Washoe County, a countywide agency that runs a bus system and serves as the metropolitan planning organization. The study involved a major data collection effort to update travel characteristics and roadway costs in the region. The fee schedule is uniform throughout the county, which is divided into several benefit zones for expenditure of fee revenues. The fee funds improvements to roadways jointly determined to be of regional benefit. Regional roadways include all arterials and major collectors, as well as some minor collectors. Much of Sparks’ support for the fee came from its interest in funding improvements to a major interchange with Interstate 80 within its corporate limits. Improvements funded are those identified in the long-range regional transportation plan based on modeling by the RTC and a multi-tiered level-of-service standard. Legal issues involved a determination that the multi-jurisdictional approach could be accomplished under the state’s *Inter-Local Cooperative Agreement Act*, even though not permitted in the *Nevada Impact Fee Act*.

With two new tools, the County now funds an aggressive road construction and maintenance program. As a local official stated, “The gas tax didn’t allow us to eradicate the backlog in new road construction, (but) with the assistance and cooperation of area developers, we authorized impact fees to fund new roads and improve the capacity of existing roads. This funding has made it possible for us to keep pace with the need for new roads.”

Benefits

Impact fees are designed to do what exactions cannot, which is to recoup some of the costs of expanding off-site system capacity. With developer exactions under increasing scrutiny by courts employing the U.S. Supreme Court’s *Nollan/Dolan* standards of “essential nexus” and “rough proportionality,” and with shrinking traditional sources of capital funding, it is no surprise that impact fees are one of the fastest-growing capital funding sources for local governments. Effective impact fees must be coupled with a strong targeted capital investment program.

Disadvantages

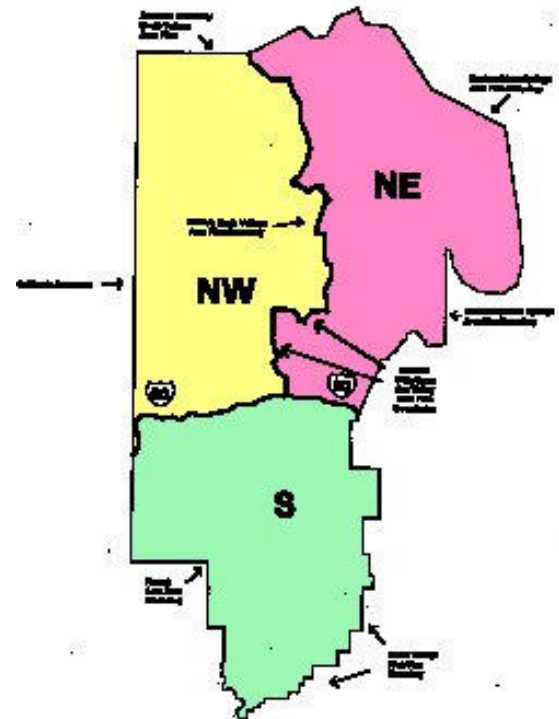
One assumption underlying the notion of impact fees is that “growth should pay its own way.” Historically, communities have invested in infrastructure to encourage industrial development, downtown development and even desired residential development. A shift from that policy should be made only based on clear planning policies and a full understanding of the ramifications of the program. Impact fees rarely cover more than a fraction of the full cost to serve new development. Part of this is due to revenue credits necessary to acknowledge future contributions by new development through taxes or rate payments to help retire debt for existing facilities. Another factor is the need to use conservative assumptions in order to avoid litigation. A good impact fee program is an essential element of most local growth management programs, but it ought not to be the only element and ought not to be the only FUNDING element for new infrastructure.

Local Note

The Lawrence utilities department has a history of using “system development charges” to help recoup a part of the capital costs of system and plant expansion from new development. Although for legal purposes, these may be viewed as utility connection charges, as a practical matter they serve the same purpose as impact fees. There are no other local fees comparable to impact fees.

The City of Lawrence, however, as a comprehensive “development policy” that is used as a framework to recommend exactions to be imposed as conditions of development approvals by

Road Impact Fee Benefit Areas



the City.⁴⁸ The requirements of that policy are summarized in two matrices attached to the policy; those matrices have been reformatted and incorporated into this report on the next two pages.

⁴⁸ “A Resolution Establishing The Development Policy For The Financing Of Public Improvements,” Res. No. 5614, April 19, 1994.

Table 4 MATRIX FOR DEVELOPMENT/FINANCE COSTS – [SITE RELATED]

Improvement	Developer Cost	City Cost	Comments
On-site Costs			
Lateral Sewer and Trunk Main	100%	Relief Lines 100%	
Sewers			
Water	100% of all distribution lines**	100% of transmission lines	(1)
Relief Sewer	-0-	100%	
Streets	100% first 31'		
Storm Sewers	100%		(2) (3)
Water Meter/Tap	100%	0%	
Sewer Lift Station	200% construction	100% maintenance & operation	
Sidewalks/Bike Trails	100%		
Off-Site Improvements			
Street Lights	-0-	100%	
Traffic Signals	refer to section I	refer to section I	
Street Improvements	refer to section J	refer to section J	
Storm Drainage	refer to section J	refer to section J	
Electricity/Street Lights	-0-	100%	(4) (5)
Telephone	100%	-0-	
Cable	100%	-0-	
Natural Gas	100%	-0-	
Parks	-0-	100%	(6)

[notes to Table on next page]

- * City considers Benefit District Financing Requests (usually 10 years). Benefit Districts require the developer to pay 25% of the engineering and construction cost up-front.
- ** Distribution lines are any lines up to 12 in diameter.
- *** Yearly rental with KPL for a typical subdivision. KPL charges developer for subdivision costs, trenching, etc.
- (1) City does not consider Benefit District Financing for water mains, water meters or any improvements in floodplains. Article 20-9A06 refers to requirements for development in the floodplain overlay district.
- (2) City does not allow for use of Benefit District Financing for storm sewers in newly developing areas. Catch basins, crossroad pipes. etc... are considered part of the street.
- (3) City considers Benefit District Financing in substantially developed areas. Open drainage is encouraged throughout the city. City participation is negotiated.
- (4) Developers negotiate with KPL. KPS. Southwestern Dell, and sunflower Cable for installation costs.
- (5) Development costs for underground wiring to service buildings and street lights are 100% cost to the developer.
- (6) Developers must submit Major Street Tree Plan and complete the plan during construction.

Table 5 MATRIX FOR DEVELOPMENT/FINANCE COSTS [CENTRAL PLANT]

Improvement	Developer Cost*	City Cost
Wastewater Treatment Plant	-0-	100%
Sanitary Sewer Collection System	100% Lateral and Trunk Main Lines	100% Interceptor Relief Lines
Sanitary Sewer Pump Station	-0-*	100%* Construction, Operation and Maintenance
Sanitary Sewer Package Lift Station	100% Construction	100% Operation/Maintenance
Water Treatment Plant	-0-	100%
Water Distribution System Mains - New	100% of all distribution lines	-0-
Water Distribution System Mains - Rehab	-0-	100%
Elevated Storage	-0-	100%
Water Distribution System - Transmission	-0-	100%
Water Tap/Meter	100%	-0-

* Development can require improvements to an existing station (capacity, etc.) that would be paid for by the development (e.g., Yankee Tank development paid for improvements to Four Seasons Lift station).

As the Development Policy notes, the City uses “benefit districts” as one of the tools through which off-site improvements may be financed. A number of parts of West Lawrence were developed through benefit districts established by Douglas County.⁴⁹ A variation on the use of benefit districts is the requirement that a developer execute an agreement not to protest the future formation of a benefit district, thus facilitating the future use of a benefit district to upgrade facilities when they are needed.

One problem with the Development Policy as a tool is that it is necessarily incremental. The facilities exacted from a particular developer to solve problems related to that development may or may not fit into a logical long-range plan for serving the entire area. This issue has been of particular concern in dealing with utilities. It has been less a concern in dealing with

⁴⁹ County benefit districts are governed by Kan. Stat. Ann. §19-070 et seq.

roads, because the City and County, through the Metropolitan Planning Organization transportation planning function, have major road plans for most parts of the community and thus can ensure that proposed roads line up with that plan. The other difference between roads and utility lines is that it is relatively easy to start with a two-lane road and then expand it to four lanes as the lanes are needed. It is much more expensive to start with an 8-inch water line to serve a subdivision and then upgrade it to a 12-inch line to serve the entire area.

Targeted Capital Facilities Planning

Description

Capital improvements include any physical improvements identified and needed by a community. The most common types of projects involve construction and maintenance of roads, municipal buildings, acquisitions of real property, or acquisition of equipment. Capital improvement plans in particular announce to the development community the order and priority of improvements to public facilities. If a locality adheres to a policy of following the schedule of improvements announced in its capital improvement plan, it can effectively guide new development to designated growth areas as developers come to realize that local government will not allow the development community to dictate the location and timing of improvements to public facilities.

One concern that is sometimes missed in a system like the one in Lawrence, where the focus is on ensuring that developers contribute to the capital costs of required facilities, is that some new facilities are far more expensive to operate than others. A subdivision that requires a lift station to handle its sewage or a major new loop in the water system is likely to cause an increase in operating and maintenance costs that is disproportionate to its contributions to revenues.

A careful plan for the provision of public facilities can be an important tool for growth management. A locality's capital improvement plan should adhere to the vision and growth management policies announced in its comprehensive plan. The capital improvement plan is effective, however, only to the extent that the locality follows the schedule of improvements designated by the plan. If developers believe that the locality will deviate from the plan to accommodate new development, a plan for the provision of public facilities will be an inadequate incentive to target development in designated growth areas. Similarly, if the locality's zoning ordinance does not follow the growth management policies announced in the comprehensive plan, demand for new facilities created by development pressure will force the locality to deviate from its growth management priorities and the schedule announced by its capital improvement plan.

Communities must prioritize directing new economic growth into existing neighborhoods or the areas targeted for growth in their comprehensive plans. Not only will this deflect growth from undeveloped areas, but also it is likely to strengthen a particular neighborhood over the long-term if the growth is planned with consideration to the neighborhood's attributes and qualities. A Capital Improvement Plan is one of the most effective means to manage community growth of a community. A growing city with a CIP in place can regulate where and when growth occurs within the city. For instance, if primary infrastructure is never

extended to an area, growth is less likely to occur. However, where growth is desired, infrastructure can be extended which will likely result in development.

It is significant to note in this context that Kansas law specifically contemplates a plan-driven approach to capital improvements programming. It includes this express provision:

- (a) Except as provided in subsection (b), whenever the planning commission has adopted and certified the comprehensive plan for one or more major sections or functional subdivisions thereof, no public improvement, public facility or public utility of a type embraced within the recommendations of the comprehensive plan or portion thereof shall be constructed without first being submitted to and being approved by the planning commission as being in conformity with the plan. If the planning commission does not make a report within 60 days, the project shall be deemed to have been approved by the planning commission. If the planning commission finds that any such proposed public improvement, facility or utility does not conform to the plan, the commission shall submit, in writing to the governing body, the manner in which such proposed improvement, facility or utility does not conform. The governing body may override the plan and the report of the planning commission, and the plan for the area concerned shall be deemed to have been amended.
- (b) Whenever the planning commission has reviewed a capital improvement program and found that a specific public improvement, public facility or public utility of a type embraced within the recommendations of the comprehensive plan or portion thereof is in conformity with such plan, no further approval by the planning commission is necessary under this section.⁵⁰

The list of facilities that can be addressed in the plan (and that are thus subject to this review requirement) is broad:

- (a) The general location, extent and relationship of the use of land for agriculture, residence, business, industry, recreation, education, public buildings and other community facilities, major utility facilities both public and private and any other use deemed necessary;
- (b) population and building intensity standards and restrictions and the application of the same;
- (c) public facilities including transportation facilities of all types whether publicly or privately owned which relate to the transportation of persons or goods;
- (d) public improvement programming based upon a determination of relative urgency...⁵¹

Examples: Maryland's Smart Growth Legislation

Anti-sprawl legislation passed on the final weekend of the Maryland legislative session. Gov. Parris Glendening's self-described top legislative priority, "Smart Growth Initiative," sailed through the House and Senate after key differences were ironed out. The bill, a slightly

⁵⁰ Kan. Stat. Ann. §12-748.

⁵¹ Extracted from Kan. Stat. Ann. §12-747(b); note that the internal numbering of the list is the same as the paragraph numbering in the original, as well as here.

weakened version of what the Governor proposed last summer, should discourage suburban development.

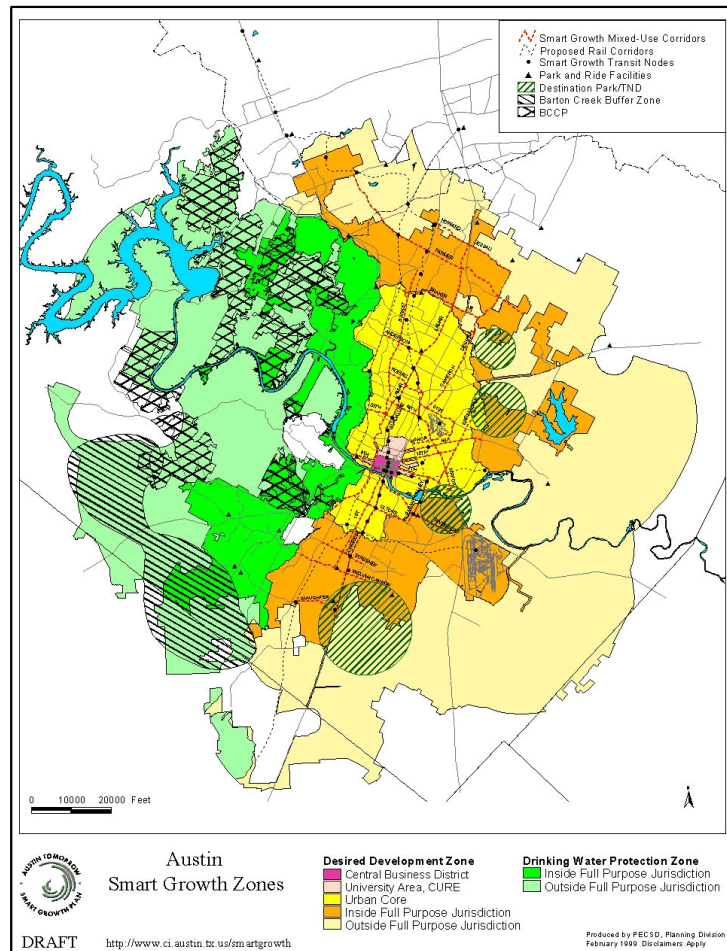
The new law will restrict state spending on roads, sewers, schools and other public infrastructure spending to designated growth areas -- essentially all the areas inside the Baltimore and Washington beltways and established towns and cities across the state. The law means that hundreds of millions of state dollars will be funneled into existing growth areas. Current development patterns had been predicted to eat up more than 500,000 acres of open space and farmland over the next two decades. Development can still occur outside growth areas, but no state funds can be used to support those efforts, taking away a major financial support to existing sprawl patterns.

Source: [Smart Growth Network; http://www.smartgrowth.org/library/mdsglaw.html](http://www.smartgrowth.org/library/mdsglaw.html)

Example: Austin, Texas

The Smart Growth Zone Specific Incentives refer to changes in fees the City charges for zoning, subdivision, and site plan applications, and for water and wastewater capital recovery fees. Within the Desired Development Zone (DDZ) these fees are reduced on a sliding scale based on where the project is located. Within the Drinking Water Protection Zone (DWPZ) development application fees are not reduced and capital recovery fees are slightly increased. The Zone Specific Incentives are available to all projects within the DDZ.

The City of Austin recently changed its policies for reimbursing private developers for the construction of major water and wastewater facilities. Previously, the City provided reimbursement for certain water and wastewater facilities over a three year period. Under the new policies, major water and wastewater facilities located in the DDZ will be reimbursed in a single payment. Within the DWPZ, reimbursement for wastewater facilities will be discontinued and the reimbursement schedule for water facilities will increase from three years to four.



Smart Growth Matrix

The [Smart Growth Matrix](#) is a tool to assist the City Council in analyzing development proposals. It is designed to measure how well a development project within the Desired Development Zone meets the City's Smart Growth goals such as: 1) the location of development; 2) proximity to mass transit; 3) urban design characteristics; 4) compliance with nearby neighborhood plans; 5) increases in tax base, and other policy priorities.

If a development project, as measured by the matrix, significantly advances the City's goals, financial incentives may be available to help offset the high cost of developing in urban areas. These incentives may include waiver of development fees and public investment in new or improved infrastructure such as water and sewer lines, streets or streetscape improvements, or similar facilities. Incentives available under the Smart Growth Matrix require City Council review and approval.

SMART GROWTH CRITERIA MATRIX					REVIEWER:						
City of Austin Transportation, Planning and Design Department					MARK ONE: <input type="checkbox"/> SELF SCORE						
DEVELOPMENT: _____ DATE OF REVIEW: _____					<input type="checkbox"/> PRELIMINARY SCORE						
					<input type="checkbox"/> FORMAL SCORE						
GOALS	CATEGORY	ELEMENTS	CRITERIA	POINT SYSTEM			SCORE				
			Criteria based on information that is not complete or available for scoring	WEIGHT	VALUE	MAX POINTS AVAILABLE	SCORE	COMMENTS	TOTAL POSSIBLE	TOTAL SCORE	
	Eligibility	1. Neighborhood Plans	Project does not conflict with adopted Neighborhood Plan for the area.								
		2. Historic Review	Projects proposing demolition/modification of historically significant buildings require review.								
		3. Incentive Package	Project may not receive Smart Growth Zone Specific incentives.								
SMART GROWTH GOAL I: Determine How and Where Development Occurs	Location (87 points)	1. Smart Growth Zones (Eligible for only one zone - A,B, or C for a maximum possible 45 points)									
		A. Downtown	1. Anywhere	5	5	25					
			2. Within a 1 block radius of a CMTA bus stop	5	4	20				0	
		or B. Urban Core	1. Anywhere	4	3	12					
			2. Within one lot deep of a Smart Growth Corridor	4	4	16				0	
			3. Consistent with transit station area plan								
		or C. Desired Development Zone (DDZ) inside City Limits	1. Anywhere	3	1	3					
			2. Within one lot deep of a Smart Growth Corridor/park & ride	3	3	9				45	0
			3. Consistent with transit station area plan								
		2. Location Risk	A. Focus on area of economic need	4	3	12					
			B. A "Trail Blazer" in an untested market			30				42	0
		Process (135 pts)	1. Neighborhood Planning (Choose A or B)	A. Requires dialogue and support by adjacent neighborhoods (Projects outside of Downtown)			75				75
			B. Downtown Projects			35					
	2. Design Commission (Choose A or B)		A. Presentation & endorsement of plans without conditions (Projects outside of Downtown)	5	2	10					
			B. Downtown Projects			50				50	0
		3. Historic Landmark Commission	A. Presentation & endorsement of plans without conditions	5	5	25					
			B. Historically zoned buildings or buildings within a historic district			50				50	0
	Critical Mass (24 points)	1. Threshold Density									
		A. Population (DUA)	1. Meets minimum threshold to support transit (7 to 12 dua average w/in one lot deep of Proposed Smart Growth Corridors. 12-25 dua average in Downtown)	3	4	12					
			(Consistent with transit station area plan)								
		B. Employment (FAR)	2. Meets minimum threshold to support transit (Min. FAR of .35 w/in one lot deep of Proposed Smart Growth Corridors or min. FAR of .5 in Downtown)	3	4	12					
			(Consistent with transit station area plan)							24	0
	Land Use (110 points)	1. Land Use Contribution (Eligible for only one-A,B, or C for a maximum possible 35 points)									
		A. Downtown Projects	1. Regional draw - retail (anchor retail), entertainment, or cultural center	5	3	15					
			2. Greater than 200 new housing units	5	4	20					0
		or B. Urban Core Projects	1. Regional draw - retail (anchor retail), entertainment, or cultural center	4	3	12					
			2. Variety of housing types (apartments, rowhouses, SF)	4	3	12					
			3. Greater than 200 new housing units	4	1	4					0
		or C. Traditional Neighborhood Projects	1. Meets TND codes and ordinances	3	3	9					
			2. Variety of housing types (rowhouses, gar. apts, sf)	3	3	9					
			3. Town Center with neighborhood retail	3	3	9				35	0

Smart Growth Matrix Scoring System and Incentive Levels

A maximum point value is assigned to each of the criteria in the Matrix. The final score for each project is dependent on how many of the criteria an individual project meets. There are four point levels, three of which may qualify a project for incentives.

- 0 to 225 points = No Additional Consideration
- 226 to 300 points = Projects scoring in this range may qualify for waiver of 50% of applicable City of Austin fees.
- 301 to 375 points = Projects scoring in this range may qualify for waiver of 100% of applicable City of Austin fees and city participation in certain infrastructure improvements. The total value of all incentives cannot exceed the net present value of the increase in property tax revenues generated by the project over 5 years (See examples below.)
- 376 to 635 points = Projects scoring in this range may qualify for waiver of 100% of applicable City of Austin fees and city participation in certain infrastructure improvements. The total value of all incentives cannot exceed the net present value of the increase in property tax revenues generated by the project over 10 years (See example below)

Summary of Smart Growth Matrix Process

Stage 1: Preliminary Review

Stage 2: Formal Review

Stage 3: Contract

Stage 4: Permits/Construction

Source: City of Austin, Texas; (<http://www.ci.austin.tx.us/smartgrowth.htm>)

Benefits

The benefits are substantial. Money is a far more powerful tool for implementing a plan than are regulatory tools such as zoning. If a community spends money appropriately in areas where it wants growth to occur and withholds road and sewer investments from areas where it does NOT want growth to occur – it will see its plan begin to come true.

Disadvantages

Local governments may build infrastructure prematurely to serve planned development, thereby reducing the availability of resources that might be spent on other programs. It is important to note that such a program will account for only a portion of an annual capital budget – other parts of the capital budget must always be used to meet critical public safety needs, serious deficiencies in existing systems and other capital priorities.

Local Note

Horizon 2020 provides a solid basis for targeted capital investments. Further, the City has a history of using the Metropolitan Planning Commission to review its capital improvements plan (five-year) and capital improvements program (current year) for consistency with *Horizon 2020*. All of this is important and is required by state law.⁵²

The County also has a rolling five-year capital improvements program. There is currently no formal process for the Metropolitan Planning Commission to review it, although the same state law applies to County investments in facilities as to City ones.

The Lawrence water and wastewater systems are operated as enterprise funds. As such, their capital budgets are developed separately and they are able to make relatively long-range decisions based on their own funding sources. In that context, utilities planners have attempted to be proactive in locating infrastructure where it makes sense from a planning as well as from an engineering standpoint. A discussion over the logical location for expanded wastewater treatment continues in the City; the location of the growth that it will serve is clearly one of the significant issues affecting the decision, along with concerns about water quality and engineering practicality.

The City and County have cooperated on targeted infrastructure development within the growth area. The County has established benefit districts to finance major sewer improvements to allow the expansion of City wastewater treatment services to new areas.

⁵² Kan. Stat. Ann. §21-748, cited and quoted above.

Further, the City has attempted to lead development with appropriate infrastructure in other cases. Examples include:

- The long-range planning efforts for the four-lane Clinton Parkway, which received its first state funding some 15 years after planning for it began;
- Extension of West 15th Street west of Wakarusa;
- The construction of Wakarusa Drive between 6th and Clinton;
- The pending improvement of West 6th Street to K-10;
- Acquisition of a 40-acre tract southeast of the City limits for future use as a park; and
- Coordination of parks planning with possible school-site needs for the Lawrence schools.

Nevertheless, some participants refer to the CIP as a “wish list,” although that characterization appears to be less accurate for utility expansions than for some other facilities. Although every local capital planning process must have the flexibility to deal with emergencies, federal and state mandates and other matters that may be outside the planning process, a truly targeted program of capital investments is plan-driven, rather than simply plan-advised. Lawrence leaders have made periodic decisions to invest in major infrastructure improvements that will lead, rather than follow, growth; discussions about the expansion of wastewater treatment capacity continue that trend. Although there are thus many strengths in the current program, the City’s capital improvements plan itself indicates that it is largely reactive to evolving growth trends, rather than pro-active in trying to drive growth trends. One of the results of the willingness of the City to respond to growth-generated demands is that residents and businesses appear willing to move into developments that may be premature, because they are confident that the City will make necessary services available.

The major missing piece, however, is a comprehensive link between *Horizon 2020* and the capital plans and programs. Ideally, the City administration would task the heads of its infrastructure departments with developing a comprehensive set of capital needs to implement fully the vision of *Horizon 2020*. Analysis of the resulting project lists may illustrate differences among the abilities of different departments to serve particular areas and raise questions about some particular aspects of *Horizon 2020*. As those issues are resolved – which may involve amending *Horizon 2020* to adjust goals or policies that appear impracticable or unduly expensive to achieve – the result should be a plan-driven capital improvements plan, from which the City can build its rolling five-year CIPs.

Note, also, that the City’s adopted “Annexation Policy”⁵³ requires annexation as a condition of receiving City sewer, water or sanitation services.⁵⁴ That is another technique that helps to maintain a relationship between long-term planning and capital investments.

⁵³ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996.

⁵⁴ “A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City,” Res. No. 5810, July 2, 1996, Sect. 5.

Growth Boundaries

Description

Growth boundaries (in the form of urban growth boundaries or urban service areas) direct urban development into areas intended or needed for urban uses and away from areas intended or needed for rural and resource areas. Boundaries create a clean break between potentially inconsistent urban and rural land uses, thereby protecting rural land from urban spillovers while also providing important environmental and economic benefits to urban development. Urban growth boundaries, as well as urban service areas, are the principle means by which containment lines are drawn. Generally, urban service areas are more flexible in expansion because they are drawn mostly consistent with the economics of planned public facilities. Urban growth boundaries, on the other hand, have many more policy objectives in addition to providing efficient services.

Example: Boulder, Colorado

Boulder has developed a national reputation for having dealt aggressively with growth issues. The city has developed a 27,000-acre greenbelt, a system for controlling the rate of population growth by limiting building permits, and a defined urban growth boundary managed in cooperation with Boulder County. Boulder's approach to urban growth boundaries, called the service area concept, offers important lessons for controlling sprawl, preserving rural land uses outside the city, and extending urban services in a rational manner.

A concern that unwanted development was continuing to take place outside city limits in the county, sometimes with city water and sewer service, led to the implementation of Boulder's urban growth boundary. In 1970 the city and county adopted a joint comprehensive plan that defined the intended geographic extent of city expansion into the plains. This plan was further refined in 1978 to limit the city from extending water and sewer services outside city service area boundaries and to limit the county from approving new subdivisions that would need "urban" levels of services and facilities.

The 1978 plan, thus, protected the city against development just outside its boundaries that would put demands on city services without the ability to collect taxes to finance those services. It was also aimed at controlling sprawl, protecting sensitive environmental areas and rural land uses, and planning, financing and providing urban services in a more rational way. By adopting the plan through an intergovernmental agreement, both the city and county gained better control over urban development and service provision, while accomplishing many other conservation objectives.

It is very important to understand that the growth boundary is only one element of a complex program of planning and growth control in Boulder.

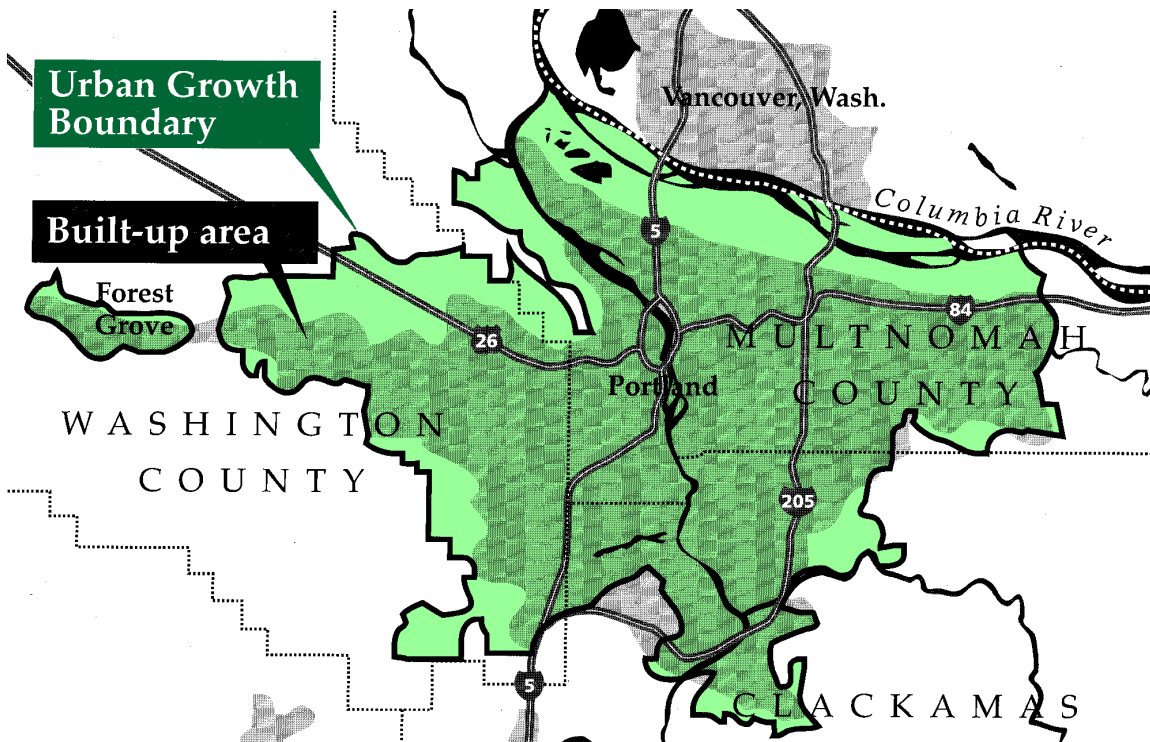
Source: "Controlling Sprawl in Boulder: Benefits and Pitfalls";
<http://www.lincolnst.edu/landline/1998/january/jan4.html>

Example: Larimer County, Colorado

In a joint city-county program, Larimer County and Fort Collins entered into an urban growth area agreement in 1980. The initial urban growth area, which encompassed the service areas of two water and wastewater utilities, comprised sixty-six square miles (forty of which were incorporated Fort Collins). The agreement, which has since been revised several times, established an urban growth area review board, appointed by the city and county, to deal with land-use issues outside the city corporate limits, but within the urban growth area. The board reviews projects and makes recommendations to the county commission regarding development approvals. Guidance is provided by the county-prepared and city-reviewed plan. The agreement strengthened the role of county commissioner decision-making, and common development standards for both the city and county have been adopted. Relationships between the city and county have improved significantly over the past several years.

Example: Portland, Oregon

Urban growth boundaries were created as part of the statewide land-use planning program in Oregon in the early 1970s. The Columbia Region Association of Governments (CRAG), Metro's predecessor, engaged in a complete planning process and proposed an urban growth boundary for the region in 1977. When Metro was created by voters in 1979, it inherited the boundary planning effort. A year later, the Land Conservation and Development Commission approved the boundary as consistent with statewide planning goals.



The location of the Metro urban growth boundary involved more than simply drawing a line on a map. The plans and growth projections of Washington Multnomah and Clackamas counties, along with 24 cities and more than 60 special service districts had to be accommodated. This particular urban growth boundary encompasses approximately 369 square miles (about 236,000

acres). The boundary was based on a projection of the need for urban land as well as the land development plans of individual property owners.

Source: <http://www.metro.region.org/growth/ugbursa/ugb.html>

Benefits

Growth boundaries provide many benefits including rational extension of urban services, preservation of rural lands and aid in focusing development within the city. The loss of associated tax revenues from competition between city and county for retail development is eliminated and the planning process is allowed to become more certain and flexible. Perhaps the greatest benefit associated with growth boundaries is that a real, identifiable edge is created between urban and rural development.

Source: <http://www.metro.region.org/growth/ugbursa/ugb.html>

Disadvantages

Portland is relatively unique in having achieved the implementation of a regional growth boundary. Other areas where growth boundaries have been used successfully have involved a single, dominant city as growth center – Boulder, Fort Collins, and Lexington, Kentucky, being notable examples. The Portland program was implemented under a strong state mandate that moved a good deal of local planning control to the state and regional levels, significantly reducing local autonomy. A growth boundary program in a complex region is likely to succeed only with similar legislation or with unprecedented, universal intergovernmental agreements among affected local governments.

Source: <http://www.metro.region.org/growth/ugbursa/ugb.html>

Local Note

An Urban Growth Area around the City of Lawrence is one of the key elements of *Horizon 2020*. The Urban Growth Area and its four Service Areas guide the City's annexation policy, which in turn guides the availability of City utilities. In addition, *Horizon 2020* contains a number of provisions intended to guide the location of larger and more intense developments in relationship to the established Urban Growth Area and the specific Service Areas within it.

One of the regulatory differences resulting from the imposition of the UGA is that subdivisions within the Primary UGA may not be developed on septic tanks.⁵⁵ Although homes on wells are permitted in the Primary UGA, anyone developing in the Primary UGA must sign an agreement committing to hook up to public water lines when they are brought within 1000 feet of the property.⁵⁶ Subdivisions in other parts of the UGA must have a 3-acre minimum lot size for a septic tank, while subdivisions in other unincorporated parts of the County are required to have only a 2-acre minimum lot size.⁵⁷ Another provision of the subdivision ordinance requires planning for possible resubdivision of larger lots in the UGA.⁵⁸

⁵⁵ Subdivision Ordinance, §21-706.

⁵⁶ Subdivision Ordinance, §21-707.

⁵⁷ Subdivision Ordinance, §21-706.

⁵⁸ Subdivision Ordinance, §21-711(f).

The City's adopted "Annexation Policy"⁵⁹ includes some key elements that reinforce the growth boundary concept. Policies related to this topic include ones that:

- Requires annexation as a condition of receiving City sewer, water or sanitation services⁶⁰;
- Encourages annexation of properties in the growth area prior to development of those properties;⁶¹ and
- Provides for the City to encourage annexation of or unilaterally annex property where necessary to eliminate enclaves (unincorporated territory completely surrounded by the City) and to square off City boundaries.⁶²

Utility Extension Policies

Description

By extending public facilities to accommodate sprawl development, localities provide a windfall in land value to developers and facilitate development beyond the urban boundary. By employing innovative financing mechanisms to fund public facilities, localities can force developers to shoulder the costs of extending public facilities to accommodate their projects, eliminating the subsidy that encourages sprawl development.

Most communities operate utility departments as "enterprise departments," encouraging them to make most decisions based on economic and engineering considerations. It is quite common to find such a department extending water or sewer service into an area in which the local government is not planning for growth in the foreseeable future. Although there may sometimes be good reasons for making such extensions, the philosophy that underlies this approach is that the plan ought to govern the extension of utilities beyond the current service area or, in the case of an incorporated city, beyond the city limits.

Example: Lincoln, Nebraska

Lincoln, Nebraska, is a leading example of a community that has used utility extension policies as a growth management tool. Lincoln growth policy of contiguous urban growth requires that urban development will occur in areas immediately abutting the city that reflect a logical and timely extension of urban infrastructure.

The City of Lincoln shall only provide water and waste water service to properties located within the corporate limits of the city. This policy provides for contiguous growth, allows for efficient long range planning and cost effective construction and management of the system.⁶³

⁵⁹ "A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City," Res. No. 5810, July 2, 1996.

⁶⁰ "A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City," Res. No. 5810, July 2, 1996, Sect. 5.

⁶¹ "A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City," Res. No. 5810, July 2, 1996, Sect. 6.

⁶² "A Resolution of the City of Lawrence, Kansas, Establishing Certain Policies for Annexation into the City," Res. No. 5810, July 2, 1996, Sect. 3.

Source: City of Lincoln – Lancaster County;
http://interlinc.ci.lincoln.ne.us/city/plan/cpmr/cp/ex_util.pdf

See, also, the Westminster program described above under “Capacity Allocation” programs.

Benefits

The benefits of such a program are essentially the same as those for a Capacity Allocation Program or a Targeted Infrastructure Investment program. The program uses a public resource to implement a public plan.

Disadvantages

There are few actual disadvantages to implementing such a program. It is important to recognize, however, that such a program is most effective with a free-standing, single service provider like Lincoln, Nebraska. Such a program may not be very effective in a complex metropolitan area with multiple, competing service providers.

Local Note

Lawrence has a long-standing policy of extending public water service only within the City limits.⁶⁴ The City appears to have no comparable limit on its extension of sewer service.

That policy is far less effective than it might be, however, for two reasons:

- Development on septic tanks is allowed relatively freely throughout the unincorporated areas of Douglas County;
- A total of eight different rural water districts provide water service in all parts of Douglas County, although not to every possible tract of land within each of those parts.

⁶⁴ “A Resolution Establishing The Development Policy For The Financing Of Public Improvements,” Res. No. 5614, April 19, 1994, Sect. VI.3.

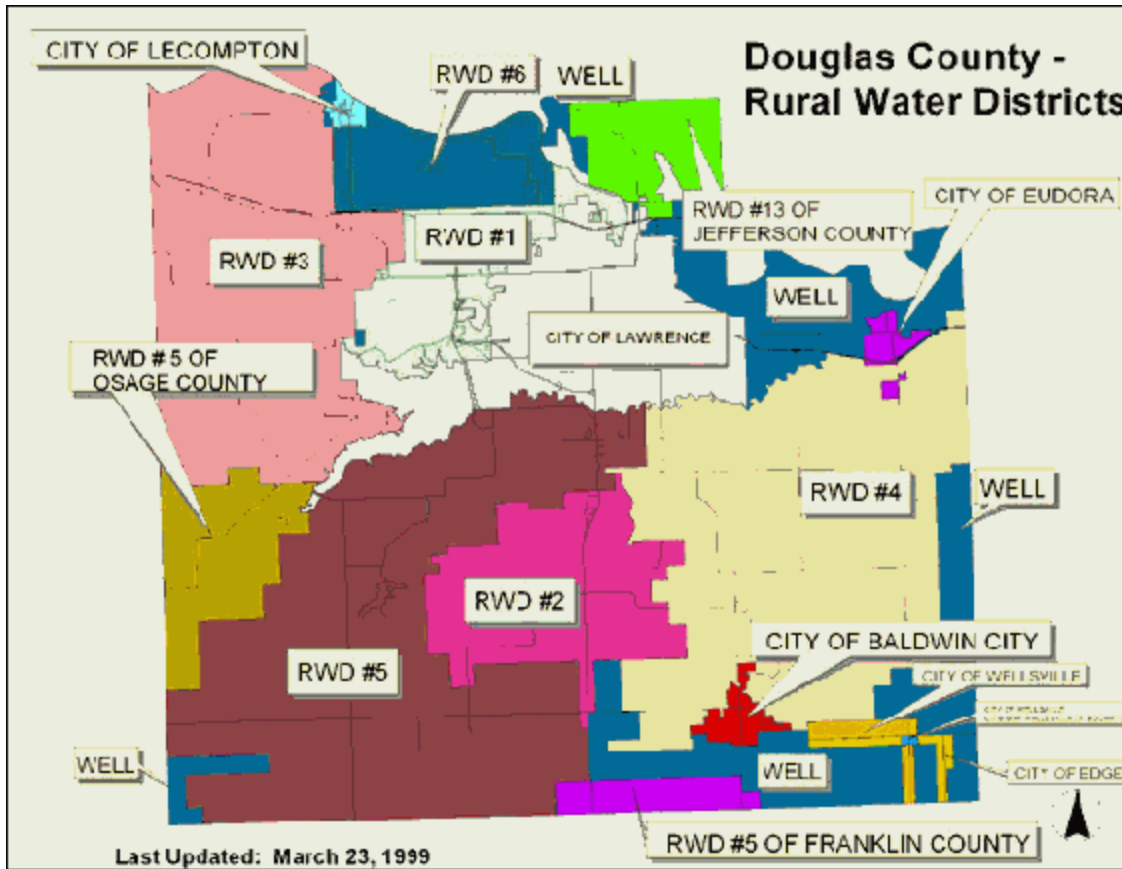


Figure 2 Rural Water Districts serving portions of Douglas County.

Water supplies for Douglas County RWD's 1, 2, 4, 5 and 6, and for Baldwin City and Jefferson County RWD 13 are treated by the City of Lawrence. The water treatment agreements with the City limit the extent to which each system can take on new customers, thus limiting suburban development that is dependent on those districts.

Capacity Allocation

Description

Capacity allocation is a growth management tool that allocates scarce capacity in sewer, water or other public systems to new users in accordance with policies that implement the adopted land use plan. Through capacity allocation, a community directs growth into areas that it considers its high priority growth sectors. This growth management tool gives a growing community increased control over what development occurs where and when. This approach leads to a more systematic expansion of a community's urban area and reduces the likelihood of growth occurring in a completely random pattern based on individual development choices. It provides the community more predictability in determining future facility needs and capacities.

Scarce capacity in utility systems represents one of the most powerful tools that a local government has to influence the timing, location and type of development. A capacity allocation program leads to a more systematic expansion of a community's urban area and reduces the likelihood of growth occurring in a completely random pattern. The City must,

however, consider the fact that it currently appears to have capacity to serve some new development and that the costs of administering such a program, while not large, may not be offset by adequate benefits to the City.

A capacity allocation program can be adopted by ordinance; it should be coordinated with the City's capital planning program and the new comprehensive community development plan.

Source: http://www.stillwater.org/extras/tech6_1htm

Example: Westminster, Colorado

Westminster, a northern Denver suburb located along the Denver-Boulder Turnpike, implemented its first capacity allocation program in 1978 as part of a growth management program that remains in use today. At the time, the city had a serious shortage of both sewer and water capacity and was faced by a large demand for new development and an incredible overhang of already-approved developments.

As part of its growth management program, Westminster established a "service commitment" system under which development could proceed only with an adequate allotment of service commitments. Type of development, location of development, quality of development, and other benefits (such as providing a critical missing link in a road or utility system) all were factors considered in the allocation of service commitments.

This program is closely related to an APF system, but it goes a step beyond such a system by recognizing that a scarce resource like water or sewer capacity is just like public money – it ought to be spent wisely for the public good.

For information on the current growth management program in Westminster, which has grown from a population of about 33,000 when the program was adopted to just over 100,000 in the 2000 census, see <http://www.ci.westminster.co.us/Code/title11/T11C3.HTM>

Benefits

The obvious benefit of such a program is that it recognizes the value of an intangible public asset and uses it to accomplish public purposes. A second benefit is that it establishes an explicit program for allocating and temporarily reserving capacity for particular developments, thus increasing the certainty of the development process and ensuring developers that approved developments can be fully built. As the tripling of population in Westminster over 25 years with such a program shows, if properly implemented – in conjunction with a targeted capital investment program – it can be a tool for accommodating substantial growth.

Disadvantages

Such a program is the antithesis of the typical first-come, first-served program of capacity allocation, a system that relies on moratoria to deal with the supply crises that arise when the system does not work. It represents a significant change in public policy.

Local Note

Water is the critical resource in Douglas County and in Kansas in general. Both the City and the various rural water districts recognize that fact. The City of Lawrence engages in a type of capacity allocation program by limiting the growth in water service to the rural water districts to an increase in the number of meters by one percent per year.

Policy Analysis of Adequate Public Facilities Regulations

Overview

Through Adequate Public Facilities Regulations (called simply APF regulations in this section), local governments establish standards that, at least in theory, allow the approval of new development only when there is adequate infrastructure capacity available to serve it. Most local governments have controls to ensure that building permits or certificates of occupancy will be denied when basic sewer and water services cannot be provided to a new building or when the provision of such services will cause the performance of the system to fall below acceptable standards. APF regulations are different, however, because they apply to development long before the building permit stage – halting the approval of new subdivisions and, in some cases, even if plans for planned unit developments or rezoning to more intensive categories.

Some APF regulations listed in the examples are simply general policy statements, such as this language from the Rockville, Maryland, code:

A preliminary plan shall be approved if the Planning Commission finds that the proposed subdivision will not: ... overburden existing public services, including but not limited to water, sanitary sewer, public roads, storm drainage and other public improvements.⁶⁵

Or consider this language from the Colorado subdivision act that applies to counties:

No board of county commissioners shall approve any preliminary plan or final plat for any subdivision located within the county unless the subdivider has provided the following materials as part of the preliminary plan or final plat subdivision submission:

- (a) Evidence to establish that definite provision has been made for a water supply that is sufficient in terms of quantity, dependability, and quality to provide an appropriate supply of water for the type of subdivision proposed;
- (b) Evidence to establish that, if a public sewage disposal system is proposed, provision has been made for such system and, if other methods of sewage disposal are proposed, evidence that such systems will comply with state and local laws and regulations which are in effect at the time of submission of the preliminary plan or final plat;
- (c) Evidence to show that all areas of the proposed subdivision which may involve soil or topographical conditions presenting hazards or requiring special precautions have been identified by the subdivider and that the proposed uses of these areas are compatible with such conditions.⁶⁶

While such language at least establishes the principle that the capacity of public facilities is an issue to be considered in determining whether to approve a new subdivision, it does not provide public officials with much guidance. Most neighbors who object to new development

⁶⁵ Rockville, MD Code of Ordinances, Sec. 25-727(e):

⁶⁶ Colo. Rev. Stats. §30-28-133(6).

(regardless of where they live) mention traffic as an issue. That occurs in cities of 20,000 and in cities of 200,000 or more. Objectively, the roads in the larger community are likely to be far more congested than the road in the small one. In both cases, the developer (often supported by expert analysis) will claim that the roads can easily handle additional traffic, while the neighbors argue that current congestion levels are already unacceptable. How are public officials to decide when a road is over-crowded? One method is through establishing a “Level of Service” (LOS) as a matter of local policy – that is, establishing an operating goal for the public facility. Most LOS standards are reasonably measurable and thus provide a basis for decision. The developments of LOS standards – and the policy choices that underlie them – are discussed in the context of particular facilities in the following sections.

LOS standards are generally performance-based – that is, they specify the level at which systems should perform; implementation through APF regulations involves modeling the impacts of a proposed development on the operations of the existing system to determine whether the increased activity will cause the system to exceed its design-capacity, as measured against the adopted LOS. Another, sometimes simpler, alternative is to ask the professional engineering and planning staff members of the City and County to develop design specifications that will achieve at least some of the performance goals. These are design criteria with clear performance objectives. Thus, the water utility might ask that new development locate only at or below the highest elevation that the system can serve with its current system. A development standard for commercial and major institutional developments might require that such uses have direct access onto a fully improved major collector or minor arterial road, rather than depending on a local street or a modestly improved rural road. A stormwater standard might require on-site detention of stormwater that would exceed the peak flow in a design standard. None of these standards guarantees that the affected system will operate at the desired levels, but each ensures that worst-case scenarios are unlikely to arise.

This chapter examines the application of APF regulations to particular facilities. The section on each facility provides a review of practical and policy considerations, as applied to the context of Lawrence and Douglas County. That analysis is followed by references to existing plans, policies and regulations adopted by the City and/or County, and by references to relevant state law.

Wastewater (Sewage Treatment)

Practical and Policy Considerations

Most communities that adopt APF regulations include wastewater capacity in the regulations. Establishing LOS for wastewater systems involves a threshold question – which is what type of sewage treatment ought to be required for new development. Although most cities and even smaller towns have public sewage treatments that are regulated by the state, an increasing amount of development occurs in rural areas with no such systems. Where there are no such systems, there are several policy choices for providing sewage treatment:

- Require connection to an established public wastewater treatment system;
- Allow an alternative of creation of a new public or quasi-public “community” wastewater system;
- Allow the development to rely entirely on septic tanks;

- Allow the development to use septic tanks as an interim solution but to include “dry” wastewater lines through which all homes can ultimately be connected to the system; or
- Consider alternative treatment systems, such as the use of constructed wetlands or septic tanks with public management.

Clearly the most reliable form of wastewater treatment for development beyond a single home or a farmstead is a public wastewater treatment system. There can be a number of obstacles to connecting a particular development to an existing system, however. One obvious factor is distance, with a long distance possibly making the connection cost prohibitive. Even where distance is not a factor, however, most such systems are designed to function largely on gravity flow, and the topography of the area may make connections awkward, possibly crossing rivers or streams or traveling over ridgelines.

Creation of a new community wastewater system is often not practicable because of the operating costs. Although the capital costs of a community wastewater system may be competitive with other alternatives, such a system must have a state-administered, federally-mandated discharge permit that establishes standards for the quality of the discharge. Maintenance of those standards requires constant monitoring and the availability of personnel to deal with any system malfunction. Most cities that operate wastewater treatment plant have technicians available 24 hours per day. Although it may be possible to operate a system without 24-hour staffing, the labor costs are still substantial. Further, most states are not enthusiastic about approving new community (or package) treatment plans, because each represents a new discharge source that must be carefully monitored.

A May 4, 2002, article described one nearby example of what happens when septic tanks fail – a group of Kansas City neighbors organized to raise the funds necessary to hook their homes to the sewer system when the city threatened to condemn their homes because of serious septic system failures.⁶⁷ A 1996 report described the vote of homeowners in the Quail Ridge subdivision in unincorporated Jackson County, Missouri, on a proposal to accept a \$675,000 indebtedness to provide public sewers to replace the failed septic systems in the 64-lot subdivision – a figure that totaled about \$10,500 per household and would, according to the article, cost each homeowner between \$90 and \$100 per month to pay off.⁶⁸

An alternative that can reduce the net costs of dealing with failing septic systems in subdivisions is requiring that the developer provide dry lines, stubbed out to points near the septic tanks on each property, so that a development can be converted to public sewers when an interceptor line is available in the area.

All of this discussion is illustrative, only, however. The fundamental Level of Service question is whether a community is willing to allow large new developments on septic tanks or other non-centralized technology. As shown in Table 2 Numbers of Households and Change, Douglas County, Kansas, 1990-2000, shown on page 3, from 1990 to 2000, there was an

⁶⁷ Bradley, “Work begins on long-awaited sewer line,” *Kansas City Star*, May 4, 2002; *Southland Star*, page 16.

⁶⁸ Rice, “Quail Meadows voting on whether to add sewers,” *Kansas City Star*, October 31, 1996, Zone: Lee’s Summit, page 19.

increase of more than 700 households in the unincorporated areas of Douglas County not served by public sewer systems.

For communities with centralized systems, engineering considerations and the terms of the National Pollution Discharge Elimination System (NPDES) permit issued for the system essentially determine the capacity of the system to handle additional development. Although planners and public officials may speak in terms of the “gallons per day” (GPD) capacity of a plant, the actual capacity is a function of its ability to eliminate pollution. Thus, for example, the installation of low-flush toilets in a community will increase the effective capacity of the water plant (which must deliver less treated water per toilet) but will not increase the capacity of the wastewater treatment plant, because there will still be the same quantities of contaminants in the system. Thus, the system capacity is an objective, determinable factor. It is unusual for a community to allow connections to the system that cause it to exceed its capacity, because there are substantial penalties that apply both to the local government and to the individuals involved in any decision that results in a violation of the NPDES permit. Thus, the question is not whether the community will limit the connections to the sewage treatment system, but whether it will impose APF regulations to ensure that only developments that can be served by the system are approved or whether it will continue to approve developments and, if the plant fills up, simply impose a moratorium on building permits or certificates of occupancy.

Current Local Policies and Regulations

Chapter 4 of *Horizon 2020*, the adopted comprehensive plan for Lawrence and Douglas County, is entitled “Growth Management.” It establishes the “urban growth area” for Lawrence and divides that into three “service areas.” Clearly the availability of public sewer service was a central factor in the designation of the service areas. The policies for Service Area 2 provide in part:

Other areas identified as apart of Service Area 2 include areas within North Lawrence which cannot currently be easily served by the municipal sanitary sewer system.

Urban development should not be allowed in the Northwest Lawrence area until the City adopts a policy establishing a means to provide wastewater collection and treatment for the entire area or a portion of the area. Presently, the entire area cannot be served with gravity flow sewers. Should a system be designed to serve these areas, a sector plan will need to be developed and approved to identify specific land use policies for the area.

....

Development of these areas is also conditioned upon an overall increase in the wastewater treatment capacity of the City to permit service to the area.⁶⁹

Relevant policies for Service Area 3 include these:

Sanitary sewer services have been planned and will be more readily available in Service Area 3A before they will be extended beyond the ridgeline.

⁶⁹ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 4, p. 33.

Development of this area should be conditioned upon substantial development of comparable property (generally bounded by Wakarusa Drive on the east) located in Service Area 1 to ensure the proper extension of utilities and the efficient provision of other public services. Developing Service Area 3 is not dependent upon the entire build out of all Service Area 1 locations; the plan provides guidance in the development of comparable properties to reduce the likelihood of leapfrog development and premature utility extensions.⁷⁰

Policies for Service Area 4 indicate:

Without access to wastewater treatment in this area, urban density development will not be cost effective within Service Area 4. When urban development of the area is proposed, it should be permitted only upon recommendation of the Planning Commission and approval by the City Commission and contingent upon the following:

- Service Area 4 should be extended south of the Wakarusa River when access to a municipal wastewater treatment system is planned or under development to serve the area...⁷¹

Chapter 5 (Residential Land Use) of *Horizon 2020* also includes this policy statement:

Policy 1.5: Ensure Adequate Infrastructure Facilities

Develop a utilities extension policy for the City of Lawrence which ensures the phased connection of all development in its urban growth area to water and wastewater services.⁷²

The City-County Subdivision regulations include this provision related to sewage disposal:

SEWAGE DISPOSAL SYSTEMS.

Septic tanks are prohibited on any land which is platted under these regulations and is located in the city, or in that part of Douglas County designated by map as the Primary Urban Growth Area. Community sewage collection and treatment facilities (including lagoons) shall be provided for any such land and shall be approved by the Kansas Department of Health and Environment and shall be designed to allow for future connection to a public sewer system. Maintenance of such facilities shall be provided by a corporate homeowner's association, benefit district, or other appropriate entity. Evidence shall be submitted with the final plat showing the establishment of such an entity to be responsible for maintenance and management of the system. Septic tanks are permitted on tracts of three acres or more platted under these regulations and located in that part of Douglas County designated by map as the Suburban Growth Area. Septic

⁷⁰ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 4, p. 33.

⁷¹ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 4, p. 34.

⁷² *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 5, pp. 53-54.

tanks are also permitted on lots of two acres or more in subdivision developments in the rural area of Douglas County.⁷³

Relevant State Law

The enabling act for subdivision control provides in part:

Subdivision regulations may include, but not be limited to, provisions for: ... (4) off-site and on-site public improvements;...(10) any other services, facilities and improvements deemed appropriate.⁷⁴

In *Golden v. City of Overland Park*, 224 Kan. 591, 584 P.2d 130 (1978), the Kansas Supreme Court noted the importance of conformity to the comprehensive plan as a factor to be considered in considering a change of zoning. Because *Horizon 2020* has a strong emphasis on growth management and the relationship between the availability of public facilities and the approval of new development, *Golden* would strengthen the reliance of the City and County on performance-based criteria tied to the plan as a significant consideration in the review of a proposed development. Wastewater is one of the services to which the plan gives significant emphasis.

Policy Questions Related to the Adequacy of this Facility:

1. [In the County] should certain types of development – particularly larger residential subdivisions – be allowed only in locations that can be served by public wastewater treatment systems?
2. Alternatively, should developers of residential subdivisions above a certain size that are built with septic tanks within any part of the UGA be required to plant for ultimate transition to public sewer service?
3. Should City and/or County development regulations be modified to ensure that, within the Primary Growth Area (where public sewers are required), APF regulations for wastewater treatment capacity are imposed at the time of subdivision (or other) development review, and that available capacity then be reserved for approved projects?

Water Supply

Practical and Policy Considerations

There are three factors that generally influence the capacity of a local water supply system:

1. Static water pressure, which determines the pressure available for fighting fires;
2. Fire flow capacity;
3. Treated water storage capacity.

⁷³ Subdivision Ordinance, §21-706.

⁷⁴ Kan. Stat. Ann. 12-749(b).

Note that water quality is not listed as a capacity issue. Water quality is regulated by the states through a regulatory regime established under the federal Clean Drinking Water Act. Although not all public systems are fully in compliance with all standards imposed through the Act, state regulation and monitoring ensure substantial compliance and a constant effort to improve water quality in areas where there are deficiencies. Thus, water quality is essentially externally controlled. Although plant treatment capacity can theoretically be an issue, water demand peaks during a few hours a day and the treatment plants function 24 hours per day. Thus, a typical treatment plant has many hours a day to catch up with peak demand, and storage is the critical issue.

Although water pressure and flow are matters of some consumer interest (particularly of consumers taking showers or attempting to water lawns), the governing criteria for most local water systems are based on Insurance Services Office (ISO) standards, which are used by the insurance industry to establish fire insurance rates. The quality of fire equipment and staffing and other factors also affect the rating, but the availability of water to fight fires is a critical issue in establishing ISO ratings for a community. Most municipal administrators are well aware of their current ISO ratings and are committed to maintaining or improving it. Thus, there are effective external criteria that establish the performance criteria for municipal water systems.

Virtually all public water systems deliver water through a gravity-fed pressure system. Pumps in the system pump water into elevated storage tanks or reservoirs, with the water then flowing down through the system to local users. The storage capacity of the tanks typically covers several hours of service, thus spreading the peak and making peak days, rather than peak hours, the principal concern in planning for water systems. The critical issue to understand in establishing LOS standards for a water system is that water pressure is a direct function of elevation of the delivery point in relation to the elevation of the storage facility. Such elevations are identified by water managers as “pressure planes,” and most local operators have established pressure planes above which they cannot provide service meeting locally established standards.

In short, the performance goals for public water systems are externally established. Although the City is not obligated to pay attention to the ISO rating system, virtually all municipal governments do so – because it significantly affects the insurance costs and business climate in the community.

The practical questions that communities must address focus on design standards to ensure compliance with the performance standards. Note that an alternative approach to meeting the performance standards is to require developers to install expanded lines and/or auxiliary pumping stations to provide service that will meet City pressure and flow standards.

Current Local Policies and Regulations

Regarding water service for fire protection outside the City, *Horizon 2020* provides:

Another issue for the unincorporated Townships is the lack of water supply. While some areas are served by rural water districts, the vast majority of unincorporated Douglas County does not have access to a public water supply. The Townships should work with the Planning Commission to find new ways to access water resources. For

instance, larger rural subdivisions might be required to provide some for of stormwater detention which may be drawn upon for fire suppression purposes.⁷⁵

Chapter 5 (Residential Development) of *Horizon 2020* currently includes this more general policy statement:

Policy 1.5: Ensure Adequate Infrastructure Facilities

Develop a utilities extension policy for the City of Lawrence which ensures the phased connection of all development in its urban growth area to water and wastewater services.⁷⁶

The City-County Subdivision Ordinance currently provides:

WATER SUPPLY

Before approval of a final plat, the subdivider shall provide written documentation to the Lawrence-Douglas County Health Department that a public water supply is provided for all lots. If a public water supply is not available to the subdivision, any alternate water supplies must be approved by the Lawrence-Douglas County Health Department. Upon plat approval for land located within the Primary Urban Growth Area, the subdivider must sign an agreement to connect to a public water system when public water lines are within 1000 feet to planned improvements on the property. When water wells are constructed, they shall be constructed in accordance with the "Manual of Recommended Standards for Locating, Constructing and Equipping Water Wells for Rural Homes," Bulletin 4-1, of the Kansas State Department of Health, March, 1971, as may be amended. Subdividers are required to consult with the appropriate Township Fire Department and Rural Water District to determine if the provision of fire hydrants as part of the public water supply system is feasible. In those cases where the provision of fire hydrants as part of the public water supply system is determined to be feasible, it must be provided. Evidence shall be submitted with the final plat showing compliance with the requirements of this section.⁷⁷

⁷⁵ (a) Except as provided in subsection (b), whenever the planning commission has adopted and certified the comprehensive plan for one or more major sections or functional subdivisions thereof, no public improvement, public facility or public utility of a type embraced within the recommendations of the comprehensive plan or portion thereof shall be constructed without first being submitted to and being approved by the planning commission as being in conformity with the plan. If the planning commission does not make a report within 60 days, the project shall be deemed to have been approved by the planning commission. If the planning commission finds that any such proposed public improvement, facility or utility does not conform to the plan, the commission shall submit, in writing to the governing body, the manner in which such proposed improvement, facility or utility does not conform. The governing body may override the plan and the report of the planning commission, and the plan for the area concerned shall be deemed to have been amended.

(b) Whenever the planning commission has reviewed a capital improvement program and found that a specific public improvement, public facility or public utility of a type embraced within the recommendations of the comprehensive plan or portion thereof is in conformity with such plan, no further approval by the planning commission is necessary under this section. *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, -p. 144.

⁷⁶ *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 5, pp. 53-54.

⁷⁷ Subdivision Ordinance, §21-707.

The City's Development Policy currently provides that water and sewer mains will be extended only to platted lands within the City limits.⁷⁸ The Policy itself and an attached matrix allocate expansion costs between developers and the City, generally requiring developers to pay for expansion mains, meters and fire hydrants, and the City to pay for other expansion costs.⁷⁹ As noted above, the City has adopted a system development charge for the water system, intended to recoup at least a portion of the system expansion costs.⁸⁰

The individual rural water districts have a variety of policies regarding extension costs and connection fees.

Relevant State Law

The enabling act for subdivision control provides in part:

Subdivision regulations may include, but not be limited to, provisions for: ... (4) off-site and on-site public improvements; ... (10) any other services, facilities and improvements deemed appropriate.⁸¹

In *Golden v. City of Overland Park*, 224 Kan. 591, 584 P.2d 130 (1978), the Kansas Supreme Court noted the importance of conformity to the comprehensive plan as a factor to be considered in considering a change of zoning. Because *Horizon 2020* has a strong emphasis on growth management and the relationship between the availability of public facilities and the approval of new development, *Golden* would strengthen the reliance of the City and County on performance-based criteria tied to the plan as a significant consideration in the review of a proposed development. Water is one of the services to which the plan gives significant emphasis. Note, however, that the availability of water service as a criterion is not a significant restriction on the location of new development because of the availability of water service from multiple sources in Douglas County.

Policy Questions Related to the Adequacy of this Facility:

4. [In the County] should certain types of nonresidential development -- such as institutional uses (schools, religious institutions), medical care facilities (hospitals, nursing homes), and/or major employers be allowed only in locations with adequate water pressure and supply to meet City or comparable standards?
5. [In the County] should multi-family or even large single-family developments be allowed only in locations with adequate water pressure and supply to meet City or comparable standards?

⁷⁸ "A Resolution Establishing The Development Policy For The Financing Of Public Improvements," Res. No. 5614, April 19, 1994, Sect. VI.3.

⁷⁹ "A Resolution Establishing The Development Policy For The Financing Of Public Improvements," Res. No. 5614, April 19, 1994.

⁸⁰ Ordinance No. 7387.

⁸¹ Kan. Stat. Ann. 12-749(b).

Policy Questions Related to the Adequacy of this Facility continued:

6. Should the City establish boundaries within which development would be encouraged – and development outside those boundaries be discouraged or limited – based on pressure planes that can be served by existing facilities or facilities shown in adopted capital improvement plans?
7. Should City and/or County development regulations be modified to ensure that APF regulations for water pressure and flow are imposed at the time of subdivision (or other) development review, and that available capacity then be

Stormwater Management

Practical and Policy Considerations

Stormwater systems have changed considerably over the years. When Kansas was settled, streets were dirt and the only impervious cover consisted of buildings. There was thus far less runoff proportionate to population than there is today, and most of that was handled through ditches along the road or through unmanaged sheet flow across the land – whether public or private.

As cities began to deal with stormwater, many of them did so with combined wastewater and stormwater systems. Those systems evolved in many cities late in the nineteenth and early in the twentieth centuries. Initially, they served as nothing more than collection systems, discharging combined sewage and stormwater into the nearest river or creek. As cities began to treat sewage, the combined systems became problematic, because the peak flow from stormwater would overwhelm the capacity of the treatment plant, resulting in the discharge of uncontrolled sewage. Thus, communities began to require separate sewer and stormwater systems, at least in new developments. In many communities, combined systems remained in many older areas; communities dealt with the problem of peak flow at the plant by allowing overflow discharge from the combined systems into waterways – these discharge points are called Combined Sewer Outflows, or CSOs. As the nation has substantially cleaned up its water supplies, under the Federal Water Pollution Control Act Amendments of 1972 and a series of updates to that landmark law, there has been increased pressure from federal and state regulators to eliminate the CSOs. Although some may be eliminated through establishing underground storage for the peak flows, in most cases, communities are working to separate the stormwater and sewage systems.

The system of collecting stormwater and discharging it into a nearby waterway has remained the predominant form of handling stormwater in most communities. One of the problems with such a system, however, is that it deals inadequately with peak flooding – because the peaks upstream constantly increase. Most communities grow out from a river or stream, as Lawrence has. Thus, new development is typically farther up the drainage basin than older development, meaning that the stormwater flow from new development passes through older developments. A storm sewer or gutter system that was adequate to serve the area when it was built may be overwhelmed by the increased from new development further up the basin. Thus, most communities, like Lawrence, today require at least some on-site detention to deal with peak flows of stormwater – typically releasing the stormwater gradually during a time that extends long after the peak flow has passed. Managing peak flows on-site has greatly improved

stormwater planning, because planning can be based on historic or average flows – water quantities that are much more manageable than peak flows from developed areas. Some communities have gone beyond simple detention and required on-site retention of stormwater over a long period of time – typically until it either evaporates or percolates into the ground. Where properly maintained in contexts of sparse development, such systems can substantially reduce the burden on central stormwater collection systems. The problem, however, is that “properly maintained” is a phrase that does not always apply to such systems. On-site retention systems are typically managed by homeowners’ associations or managers of shopping centers. Budget considerations and a lack of understanding of maintenance of such systems often lead to poor results. It is often unduly expensive for a city to step in and assume maintenance responsibility for such systems, because they are many, small and dispersed. Thus, many public works departments resist the installation of such systems.

An alternative approach to detention is through the creation of regional detention basins, to be maintained by public entities. Lawrence currently has an adopted plan for drainage facilities by basin, following this general philosophy. Cities with such systems typically charge a drainage fee to new development to fund the construction of the facilities. On-going maintenance may be funded from general revenues, but an increasing number of communities charge a stormwater utility fee to cover the operating costs of the facilities. Lawrence currently charges a monthly stormwater system maintenance fee based on impervious cover, calculated from a base of \$4 for an “Equivalent Residential Unit,” or a single-family house with a footprint of 1,001-1,801 square feet.

There is an inherent performance standard in all stormwater systems – a goal of preventing damage to persons and property downstream. Engineers, relying on meteorological data on the probable incidence of particular storms, can calculate the amount of stormwater likely to run off a particular site in a particular storm event; from that, they can calculate the size of system needed to handle it. Lawrence and Douglas County both currently require such computations as part of the review of new subdivisions. To the extent that local engineers have reasonable confidence in on-site detention to deal with peak flows, there should be few if any actual situations where the stormwater system cannot handle new development. The existing stormwater system already absorbs some runoff from up-basin sites even in their natural condition. If the new development includes on-site detention to ensure that peak flows from the development will not exceed historic flows, the system should, by definition, have the capacity to absorb the controlled flows from the new development. There will be more total flow from a developed site than from a natural one, but the on-site detention results in spreading that flow over more hours (or even days) than would occur without the detention.

There is one additional factor to consider in Lawrence, however. There are some neighborhoods that are low and that have had historic flooding problems. To the extent that a proposed development would result in any increase in flow through systems serving those areas, the City may wish to consider additional restrictions on such development – either short-term or long-term – as it continues to work with the neighborhoods to address their flooding problems.

No system is designed to handle every possible storm. Most communities at least plan for 100-year flood events (meaning an event that has a 1 percent likelihood of occurring in any particular year), but many stormwater systems are designed only to handle 50-year events, meaning that a 100-year event will cause some flooding. Separate regulations administered by

the Federal Emergency Management Administration attempt to ensure that such damage will not seriously affect homes, by requiring that new homes be located above the elevation likely to be affected by a 100-year flood event.

A new factor in planning for stormwater, however, is the requirement that, beginning essentially in 2002, smaller communities provide some form of treatment for stormwater – a requirement that has applied to large cities for a decade. Local governments are actively working on plans to implement these new standards. A mixture of policy considerations affects the planning process. As with wastewater, centralized systems are more predictable and easier to manage. On the other hand, the problem of peak flows of stormwater makes the operation of actual treatment plants impracticable. Some forms of long-term detention can combine constructed wetlands or other natural treatment methods that clean stormwater very effectively, but the proliferation of such systems creates management and monitoring problems. Short-term detention allows settling of some contaminants, and there are simple technologies for skimming the oily wastes included in road runoff from such facilities. Lawrence has adopted an ordinance addressing this issue; it is discussed immediately below.⁸²

Current Local Policies and Regulations

The City relies on a system of drainage-basin master plans and on-site stormwater improvements to manage runoff from new development. The City’s policy is to use open stormwater collection systems as much as possible.⁸³

The City has adopted an ordinance dealing with stormwater quality.⁸⁴ The ordinance requires active management of stormwater during construction, including the development of subdivisions.⁸⁵ Nothing in the ordinance appear to affect the design of storm drainage systems in new developments; rather, the ordinance relies on mandates to clean paved surfaces to limit the pollutants that may run off into the system.⁸⁶ The City has a monthly stormwater management fee of \$4 per “equivalent residential unit,” based on a building footprint of 1001-1800 square feet for 1 ERU.

Relevant State Law

The enabling act for subdivision control provides in part:

Subdivision regulations may include, but not be limited to, provisions for: ... (4) off-site and on-site public improvements;... (9) stormwater runoff, including consideration of historic and anticipated 100-year rain and snowfall precipitation records and patterns; and (10) any other services, facilities and improvements deemed appropriate.⁸⁷

The enabling act for zoning provides in relevant part:

⁸² City of Lawrence, Ord. No. 7373, amending Chapter 9 of the City Code.

⁸³ “A Resolution Establishing The Development Policy For The Financing Of Public Improvements,” Res. No. 5614, April 19, 1994, Sect. VI.C.2.

⁸⁴ City of Lawrence, Ord. No. 7373, amending Chapter 9 of the City Code.

⁸⁵ City Code, §9-903.

⁸⁶ City Code, §9-902(C)(3).

⁸⁷ Kan. Stat. Ann. 12-749(b).

Such regulations may include, but not be limited to, provisions restricting and regulating the height, number of stories and size of buildings; the percentage of each lot that may be occupied; the size of yards, courts and other open spaces; the density of population; the location, use and appearance of buildings, structures and land for residential, commercial, industrial and other purposes; ... and the use of land located in areas designated as flood plains and other areas....⁸⁸

In *Golden v. City of Overland Park*, 224 Kan. 591, 584 P.2d 130 (1978), the Kansas Supreme Court noted the importance of conformity to the comprehensive plan as a factor to be considered in considering a change of zoning. Because *Horizon 2020* has a strong emphasis on growth management and the relationship between the availability of public facilities and the approval of new development, *Golden* would strengthen the reliance of the City and County on performance-based criteria tied to the plan as a significant consideration in the review of a proposed development. Stormwater is one of the services to which the plan gives significant emphasis.

Policy Questions Related to the Adequacy of this Facility:

8. How will Douglas County respond to the treatment requirements for stormwater runoff in developing areas?
9. What stormwater designs are suggested by the policy response to the treatment requirements?
10. Are the City's current stormwater policies adequate to ensure that new development will be adequately served with stormwater management and will not overload the systems that serve existing neighborhoods?

Roads

Practical and Policy Considerations

Traffic congestion is often one of the major issues that lead a community to consider any type of growth management system, including APF. Yet, road capacity is a function both of design capacity and of local policies.

The biggest challenge in dealing with traffic congestion is its extreme peaking nature. In a community the size of Lawrence, "rush hour" remains that or less – that is, the capacity of the road system is really tested only for an hour in the morning and an hour in the evening on work days. In Lawrence, of course, the extreme peak comes on home football weekends, but no traffic planners attempt to ensure smooth traffic flow during such limited peaking events. Thus, the focus must be on the daily rush hour.

Many transportation planners evaluate road capacity based on a system developed by the Institute of Transportation Engineers. Lawrence and Douglas County use that system, which is summarized as follows in the draft 2025 transportation plan:

⁸⁸ Kan. Stat. Ann. §12-753(a).

	A	B	C	D	E	F
Intersection Delay (control delay per vehicle, sec)	< 10	> 10 and < 20	> 20 and < 35	> 35 and < 55	> 55 and < 80	> 80
Maneuverability	Almost Completely Unimpeded	Only Slightly Restricted	Noticeably Restricted	Severely Limited	Extremely Unstable	Almost None
Driver Comfort	High	High	Some Tension	Poor	Extremely Poor	The Lowest
Average Traveling Speed	Speed Limit	Close to Speed Limit	Close to Speed Limit	Some Slowing	Significantly Slower than Speed Limit	Significantly Slower than Speed Limit

Figure 3 Summary Chart of Levels of Service.

Source: *Transportation 2025 (Lawrence/Douglas County), “Existing Conditions” Chapter, page 4.*

The draft Lawrence/Douglas County Transportation 2025 plan includes the following discussion of “congested roadways”:

A number of roadways in the Lawrence region are currently experiencing significant congestion during rush hour. These correspond to LOS E and F, which means the vehicular demand is greater than the carrying capacity for these facilities. They include:

- 6th Street from Iowa Street to downtown Lawrence;
- Iowa Street from 9th Street to south of 23rd Street;
- 31st Street from Iowa to Louisiana;
- Clinton Parkway/23rd from Kasold to Haskell; and
- Kasold from 15th to Clinton Parkway.

Conditions on these streets have deteriorated to a point in which congestion relief is warranted through operational or capital improvements. Other facilities in the City, many of which are associated with these congested streets, are experiencing peak hour conditions regarded as approaching capacity, or LOS D. The traffic volumes on these streets are approaching the carrying capacity of the roadway. These facilities should be monitored to determine if, when, and what types of improvements may be necessary.⁸⁹

⁸⁹ [Draft] Transportation 2025 (Lawrence/Douglas County), “Existing Conditions” Chapter, page 5.

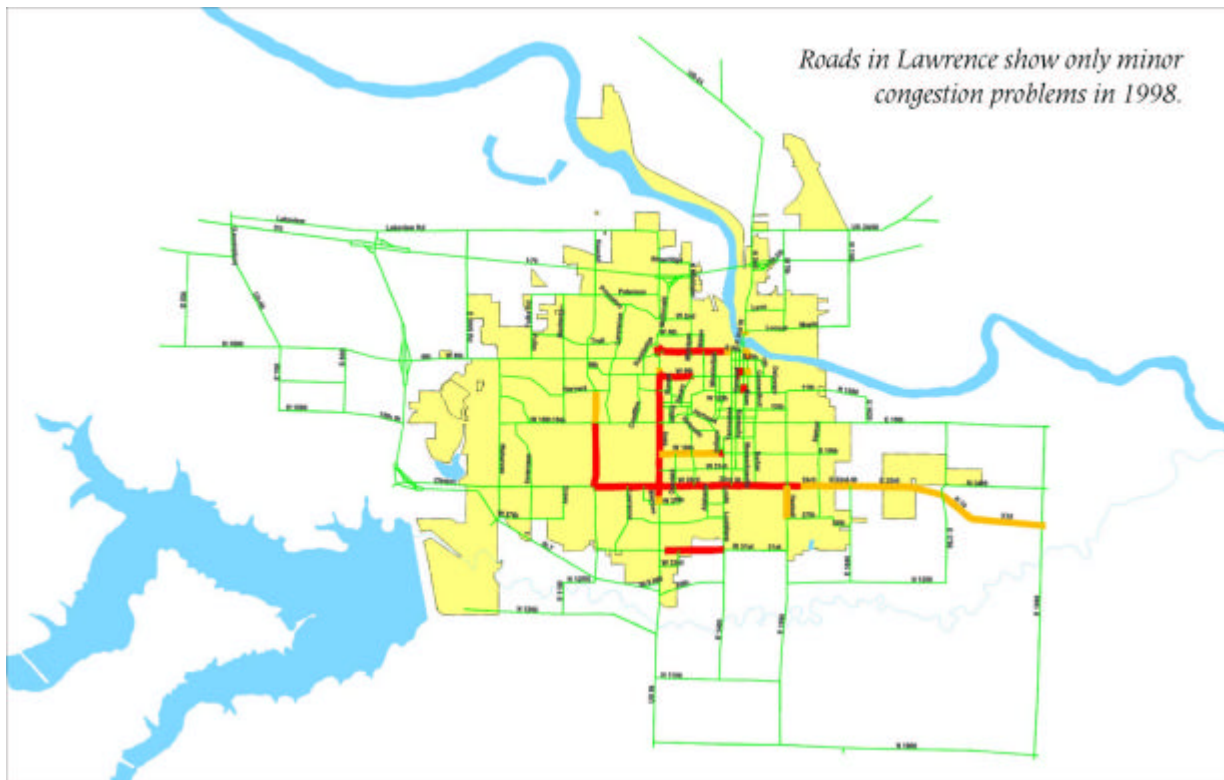


Figure 4 Existing Conditions on Major Thoroughfares in Lawrence.

For meanings of color codes, see **Figure 3** on page 66.

What happens if a road exceeds its reasonable capacity at rush hour? Traffic backs up. That leads to delays, which may add time to the commute. But, commuting time is relative. According to the 1990 census⁹⁰, average commuting time in Douglas County ranged from 15 to 18 minutes.⁹¹ In comparison, Johnson County and the other inner-ring suburban counties showed average commuting times of 19 to 22 minutes, and Jefferson and Linn County, Kansas, and Cass County, Missouri, showed an average commuting time of 28-41 minutes.⁹² An increase in commuting time of 5 minutes for someone in Lawrence could amount to a 30 percent increase in commuting time but still leave that individual's commute shorter than those of a majority of Jefferson or Linn County residents. If everyone in Lawrence is willing to accept an increased commuting time, then most roads can probably handle more capacity. If, on the other hand, people insist on continued expansions of the road system to provide efficient service even at rush hour, one possible result may be a further increase in traffic, with relatively little actual improvement in operations.

⁹⁰ In the year 2000, questions on housing, conditions, commuting patterns, and other secondary census data was included only in the "supplementary survey" report forms, given only to a percentage of households; to date, such data has been estimated only for Metropolitan Statistical Areas and governmental subdivisions with a population of 250,000 or more. See description at http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=DSS&_lang=en. Thus, we continue to rely on 1990 census data for information like this.

⁹¹ Bureau of the Census, Summary Tape File 3, available at <http://www.census.gov> using American Fact Finder.

⁹² Bureau of the Census, Summary Tape File 3, available at <http://www.census.gov> using American Fact Finder.

Orange County, Florida (Disney World is carved largely out of its southwestern corner), accepts LOS D and E on a number of its roads. It has adopted a different approach to measuring performance, however, allowing new development to cause only a 15 percent increase in load on roads classified as “constrained” and allowing no increase on roads designated “backlogged.”⁹³ Harford County, Maryland, relies on its adopted LOS criteria as a standard against which to review proposed development, but it provides that, where the existing conditions on a road are below LOS “D”, the developer is only required to mitigate the effect of the traffic attributable to the new development.⁹⁴ Montgomery County, Maryland, attempts to achieve an average LOS of C- on its roadways over-all, but it accepts LOS D/E on the freeways (state controlled) and sets different levels of service for different planning areas based on a variety of planning considerations, including the availability of mass transit as an alternative.⁹⁵

One possibility to consider in Lawrence is the acceptance of a lower LOS in the downtown area. One of the major themes of *Horizon 2020* is the maintenance and development of a healthy downtown. It should go without saying that a healthy downtown draws people. In Lawrence, most people will come by car, and that will generate congestion. People going to a popular destination expect some degree of congestion, particularly in a hospitality and entertainment district – which is one of the strengths of downtown Lawrence. To the extent that destination traffic in the downtown area may create congestion that makes it less attractive for people to pass through the area, the net effect may be to deter those through trips and encourage them to take other routes.

Another result of traffic congestion, however, is that some drivers make different decisions – they leave for work earlier or later than others and thus avoid the peak. In some of the major metropolitan areas, “rush hour” now extends for two to three hours in the morning and again in the evening, making shifting less practical for people there. In a community like Lawrence, however, with an abbreviated rush hour, shifting of commuting patterns to avoid congestion is a practical alternative for many people – particularly when many of them work for employers like the university that are likely to be somewhat flexible on arrival and departure times. Improving traffic flow at the peak may allow or even encourage some of those people to shift their commuting patterns back to more traditional ones, thus absorbing part of the additional capacity and bringing the affected road back to the same level of congestion that it had before the improvements.

A second factor that is important to understand is that the road system is just that – a system. Adjustments to one part affect other parts. Significant improvements to one East-West road may not improve traffic flow on that road substantially, because some trips will shift from other East-West roads to use the new capacity. Like most systems, the traffic system will find a new equilibrium based on the new system design. Thus, any effective plans to improve traffic capacity must focus on the entire system, not just on one road or one part of it.

A third factor that is critical to understand is that commuting time is clearly a major consideration in how people decide where to live. In other words, the geography of residential

⁹³ Orange County Code, §30-520(6).

⁹⁴ Harford County, Md., Code, §267-104.B[d][4].

⁹⁵ Montgomery County, Md., 2002 Annual Growth Policy, at p. 16; see Table 6 at page 55 for the LOS by planning area.

locations is an artificial geography of commuting times rather than a purely physical geography. If one residence is located 3 miles from downtown and another, similar, residence is located 5 miles from downtown, but, because of their location in relationship to major roads, the commuting time from each to downtown is seven minutes, the market will view the two homes as having similar locations. Thus, improvements to major roads feeding into the city (or any other major employment center) will bring more land within the average commuting time that is acceptable in the community. Such a decision may satisfy critical needs for additional land to develop or may simply allow developers to disperse new projects over a larger area.

There is also considerable evidence in larger communities that increases in traffic congestion encourage some people to use transit as an alternative. Lawrence has a viable transit system that may offer a reasonable alternative for some people frustrated with traffic congestion. Unlike fixed-rail systems, however, the buses share the roadways and thus travel no faster than cars. That simple fact makes them somewhat less attractive than fixed-rail as an alternative for commuters.

Although the historic approach to transportation planning is to attempt to plan a road system that will provide a satisfactory level of service to all users, there is increasing recognition that the relationship between land use and transportation is a dynamic and interactive one – that land-use patterns influence transportation demand and that transportation systems influence land-use patterns. One of the goals of the Draft Transportation 2025 plan for Lawrence and Douglas County is:

Principle 4.1: Encourage Land Development Patterns That Promote Transportation Efficiency

- Support in-fill development and the concentration of new commercial development and office space in activity centers that can be interconnected by transit, bikeways, and sidewalks.
- Support the clustering of homes and work locations together to minimize commuting distances and times.
- Locate transit stops/stations within convenient walking distance of major concentrations of employment.
- Support requirements for major new developments to implement strategies to manage its transportation demand.
- Encourage land use patterns that promote safe and convenient walking, bicycling, and transit.

This principle and the related policies suggest the importance of managing land-use patterns to address transportation system needs and costs.

Although an objective analysis of traffic in the community indicates that some of the major arterials are the roads with the most serious congestion problems (see Figure 1), there can be localized traffic problems on local and other minor streets. Some communities limit the development of major traffic generators (shopping malls, hospitals, larger religious institutions, major athletic facilities) to locations where they will have two or more driveways on major collectors or minor arterials. Except for the largest facilities, transportation planners generally discourage direct access onto major arterials, which should be used to carry traffic over

relatively long distances. Loading traffic from a major generator onto a minor rural road or a local residential street can create significant congestion and very real safety problems.

Note that most of this discussion is primarily relevant to the City of Lawrence. Although the County has responsibility for maintaining state roads in the unincorporated area, most local service roads in Douglas County are actually the responsibility of Townships. Few of those roads are even paved. Many predate subdivision regulations and thus do not even have clearly established rights-of-way. Simply requiring that road rights-of-way be of a specified width (now included in the subdivision regulations) and that some roads be paved are design-based level-of-service standards that would move the County toward more suburban road standards, appropriate to serve the suburban and exurban development now occurring in the unincorporated parts of Douglas County (see discussion at page 70 forward).

Current Local Policies and Regulations

Chapter 8 of *Horizon 2020* deals with transportation and includes this LOS standard for roads:

Policy 2.6: Acceptable Levels of Service (LOS)

- a. An overall level of service D (LOS D) or higher should be maintained at signalized intersections during the a.m. and p.m. peak hours of operation. For intersections on principal arterial streets however, the principal arterial through traffic movements should maintain as close to a level of service C (LOS C) as possible, or higher during a.m. and p.m. peak hours of operation.
- b. The desired level of service (LOS) may be achieved by increasing street and intersection capacity and/or reducing vehicular traffic demand. Within urban areas, issues of transportation performance (LOS) may need to be balanced with issues of urban design, development or redevelopment, and land use functionality.⁹⁶

Horizon 2020 also includes many locational standards set forth in Chapter 1 at page 10 and following. See, also, Goal 3 in Chapter 8 of *Horizon 2020*, providing access management goals for different types of development; those goals include the types of streets to which each development should have access.⁹⁷

The City Zoning Ordinance restricts the location of some commercial developments by requiring access onto certain classes of streets:

COMMERCIAL ACCESS TO LOCAL, COLLECTOR AND ARTERIAL THOROUGHFARES

Development in C-4 (General Commercial) and C-5 (Limited Commercial) districts shall be designed and encouraged, whenever possible, to share direct or indirect access to arterial or collector thoroughfares through common curb cuts or private frontage roads with the exception that, when the development property abuts a controlled intersection, access may be taken from a side street.

⁹⁶ *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 8, p. 117.

⁹⁷ *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 8, p. 121.

Development in C-2 (Neighborhood Commercial) districts shall have primary access restricted to arterial or collector thoroughfares. Indirect access to local thoroughfares is allowed when it is from a private/public frontage road or is a secondary site access drive.

Development in C-1 (Inner Neighborhood Commercial) districts is restricted to collector or arterial thoroughfares and to public alleys (if they abut the property being developed).⁹⁸

Separate provisions require that a mobile home park and an ambulatory (outpatient) surgery center each have direct access to an arterial or collector street.⁹⁹

The City requires traffic studies for some large developments, attempting to use those traffic studies as a basis for ensuring that new developments will provide the improvements necessary to maintain adequate – or at least existing – levels of service. There is no consistent policy for requiring such traffic studies, however. A more serious problem is that there is no established model to provide a context for the studies; thus, each traffic consultant is free to make the assumptions that will be most beneficial to the client’s proposed project. It is our understanding that one aspect of the 2025 Transportation Improvement Program (now in a draft stage) will be a traffic model to provide a context for future traffic studies, as well as for more general transportation planning activities.

Note that Douglas County has no requirements for the location of development based on the quality or level of service of affected roads. Thus, there are some new religious institutions and other relatively intensive uses located along minimal Township roads in unincorporated parts of the County.

Relevant State Law

The enabling act for subdivision control provides in part:

Subdivision regulations may include, but not be limited to, provisions for: (1) Efficient and orderly location of streets; (2) reduction of vehicular congestion; ... (4) off-site and on-site public improvements; ... (10) any other services, facilities and improvements deemed appropriate.¹⁰⁰

The enabling act for zoning provides in relevant part:

Such regulations may include, but not be limited to, provisions restricting and regulating the height, number of stories and size of buildings; the percentage of each lot that may be occupied; the size of yards, courts and other open spaces; the density of population; the location, use and appearance of buildings, structures and land for residential, commercial, industrial and other purposes; ... and the use of land located ... including the distance of any buildings and structures from a street or highway.¹⁰¹

⁹⁸ City of Lawrence Zoning Code, §20-1224.

⁹⁹ City of Lawrence Zoning Code, §20-1423(d) and 20-1458(a).

¹⁰⁰ Kan. Stat. Ann. 12-749(b).

¹⁰¹ Kan. Stat. Ann. §12-753(a).

In *Golden v. City of Overland Park*, 224 Kan. 591, 584 P.2d 130 (1978), the Kansas Supreme Court noted the importance of conformity to the comprehensive plan as a factor to be considered in considering a change of zoning. Because *Horizon 2020* has a strong emphasis on growth management and the relationship between the availability of public facilities and the approval of new development, *Golden* would strengthen the reliance of the City and County on performance-based criteria tied to the plan as a significant consideration in the review of a proposed development. Roads – particularly the Level of Service on roads -- are one of the services to which the plan gives significant emphasis.

Policy Questions Related to the Adequacy of this Facility:

11. Is the current LOS standard of “D” a reasonable LOS standard for all or most roads in Lawrence and Douglas County?
12. Should the City of Lawrence consider adopting a different LOS for selected streets downtown or for the entire downtown area, recognizing that success of the downtown will also continue to mean congestion in the downtown?
13. Is it reasonable and/or realistic to expect to achieve LOS “D”, or another adopted standard, 24 hours per day, or should the adopted policies be amended to anticipate operation below the adopted LOS for limited periods each day?
14. If Lawrence and Douglas County adopt level-of-service standards for major roads, should the effect of proposed development on those standards become a criterion under which new developments are evaluated; alternatively, should the LOS standard simply be used as a basis for transportation planning, as it is now?
15. If Lawrence and Douglas County adopt APF regulations for roads and apply them to new developments, should those standards be used as the basis for denying some development approvals, for asking developers to reduce density, or for negotiating with developers over the provision of road improvements that are likely to help mitigate the demand from the proposed development? If the answer to this question is affirmative, should the peak-hour load be considered in determining the LOS that can be used to deny a development?
16. Should Douglas County adopt standards requiring that certain types of development be located only along paved roads meeting City or some other established quality standard?

Parks

Practical and Policy Considerations

A number of communities that establish APF regulations include park and recreation facilities among the facilities for which they establish such standards.

Level-of-service standards for parks have traditionally been measured in acres of park per thousand people, and *Horizon 2020* currently contains exactly such standards. As the *Horizon 2020* standards suggest, however, there are at least two different types of parks that must be considered:

- Community parks, which serve the entire community or a large part of it; and
- Neighborhood parks, which, by size and location, are designed to serve a particular part of the community.

Community parks are somewhat like libraries and a municipal building. Certainly as the population grows, demand will increase and, at some point, expansion will be necessary. It is difficult to attribute an “overload” on a community park to a particular development and often difficult even to measure an “overload.” Further, to the extent that a developer may contribute to an overload situation, asking the developer to expand the park creates both policy and legal issues that are difficult to solve. Only through impact fees can a community effectively seek developer participation in expansion of community parks. Thus, many communities, however, simply budget for community parks as community-wide facilities, to be expanded from the general capital budget over a period of time.

Neighborhood parks, however, are clearly neighborhood related. It is easy to identify a new development that is built far from existing neighborhood parks or one that will cause a significant increase in the loading on a busy park. Thus, it is relatively common to ask developers to participate in the provision of neighborhood parks, through land dedications, provision of recreation facilities, impact fees, fees-in-lieu of dedication, or a combination of all of those.

Although the Florida concurrency program includes LOS standards for parks, there is little litigation or other record indicating that communities deny development approvals based on a lack of parks – in general, communities look to developers to participate in the expansion of the park system in proportion to their contributions to growth of the community.

Current Local Policies and Regulations

Chapter 9 of *Horizon 2020* includes these LOS standards for parks:

- *Neighborhood Parks* – include tot lots, play lots, play fields, ball fields, and other active recreational uses. Neighborhood parks are intended to serve approximately 1,500 to 2,000 households.
- *Community Parks* – are large scale recreational areas for organized sports and special activities. A community park should be provided for each 5,000 households.¹⁰²

The City-County Subdivision Ordinance currently provides:

PARKS, PLAYGROUNDS, SCHOOLS, OPEN SPACE, PUBLIC FACILITIES.

¹⁰² *Horizon 2020; the Comprehensive Plan for the City of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 9, p. 128.

The planning commission shall encourage the donation, reservation, or dedication of sites for parks, playgrounds, schools, open space and other public facilities.¹⁰³

Lawrence has refined its parks policy since the adoption of *Horizon 2020*. The City, like many others, has concluded that the relative maintenance costs of small parks are so high that the acquisition of “tot lots” and “play lots,” listed in *Horizon 2020*, is not justifiable. The current Parks and Recreation Plan for the City includes service-area and size standards for the two major categories of parks:

- Neighborhood parks, service area of one-half mile to one mile, with a minimum size of 5 acres, going up to 10 acres or more;
- Community parks, service area of 1 to 3 miles, with a size ranging from 30 to 50 acres.

Although land for some parks has been donated, there is no formal process of exactions for parkland; local developers and citizens view the county-wide sales tax, dedicated to parks and other limited purposes, as providing the primary financing vehicle for parks.

Relevant State Law

The enabling act for subdivision control provides in part:

Subdivision regulations may include, but not be limited to, provisions for: ... (3) reservation or dedication of land for open spaces; (4) off-site and on-site public improvements; (5) recreational facilities which may include, but are not limited to, the dedication of land area for park purposes; ... (10) any other services, facilities and improvements deemed appropriate.¹⁰⁴

The enabling act for zoning provides in relevant part:

Such regulations may include, but not be limited to, provisions restricting and regulating the height, number of stories and size of buildings; the percentage of each lot that may be occupied; the size of yards, courts and other open spaces; the density of population; the location, use and appearance of buildings, structures and land for residential, commercial, industrial and other purposes; the conservation of natural resources, including agricultural land; and the use of land located in areas designated as flood plains and other areas, including the distance of any buildings and structures from a street or highway.¹⁰⁵

In *Golden v. City of Overland Park*, 224 Kan. 591, 584 P.2d 130 (1978), the Kansas Supreme Court noted the importance of conformity to the comprehensive plan as a factor to be considered in considering a change of zoning. Because *Horizon 2020* has a strong emphasis on growth management and the relationship between the availability of public facilities and the approval of new development, *Golden* would strengthen the reliance of the City and County on performance-based criteria tied to the plan as a significant consideration in the review of a

¹⁰³ Subdivision Ordinance, §21-604.

¹⁰⁴ Kan. Stat. Ann. 12-749(b).

¹⁰⁵ Kan. Stat. Ann. §12-753(a).

proposed development. *Horizon 2020* includes an entire chapter on park and recreation facilities and establishes specific LOS standards for both neighborhood and community parks.

Policy Questions Related to the Adequacy of this Facility:

17. Should Lawrence adopt the *Horizon 2020* LOS standards for parks as criteria to be used in the review of subdivisions?
18. If the City includes such standards in the subdivision ordinance, should the purpose of those standards be to provide a criterion for approval or denial of a subdivision, or should they simply provide a basis on which to seek developer participation in provision of park land?
19. What role, if any, should the availability of parks play in the County’s review of subdivisions?

Schools

Practical and Policy Considerations

School over-crowding is second only to traffic congestion in leading to citizen protests and petitions that sometimes lead to the adoption of growth management programs, including APF regulations.



Figure 5 Sunflower Elementary School

Managing school capacity, however, may be even more difficult than dealing with traffic congestion, because there are more variables. One of the biggest changes that have affected school planning is the decrease in family size from more than 3.3 persons per household in 1970 to about 2.5 persons per household in 2000. There are simply fewer people – and fewer children – per household in most areas. Thus, a school that was well-planned to serve a particular area in 1970 may now have surplus classroom space – as most of Lawrence’s public schools did in 2002.¹⁰⁶ Another reason that a school may have surplus space, however, may be a simple aging of the neighborhood, a fact that is only partly reflected in the decrease in household size. Homes occupied with families with children are likely to have fewer children today than did similar homes 30 years ago. However, many homes that were occupied by families with children 30 years ago are now occupied by families without children – perhaps still occupied by the parents of the children for whom the school was (at least statistically) built.

Because of these changing demographics, school administrators are accustomed to changing attendance boundaries and to using busing to move students among schools. The current elementary school boundaries in Lawrence are shown in Figure 7 and at page 78.

¹⁰⁶ Lawrence Public Schools (Facilities Study), DLR Group Program Management, PowerPoint presentation dated June 2002, obtained at <http://facilities.usd497.org/project/dlrmasterplan.pdf>.

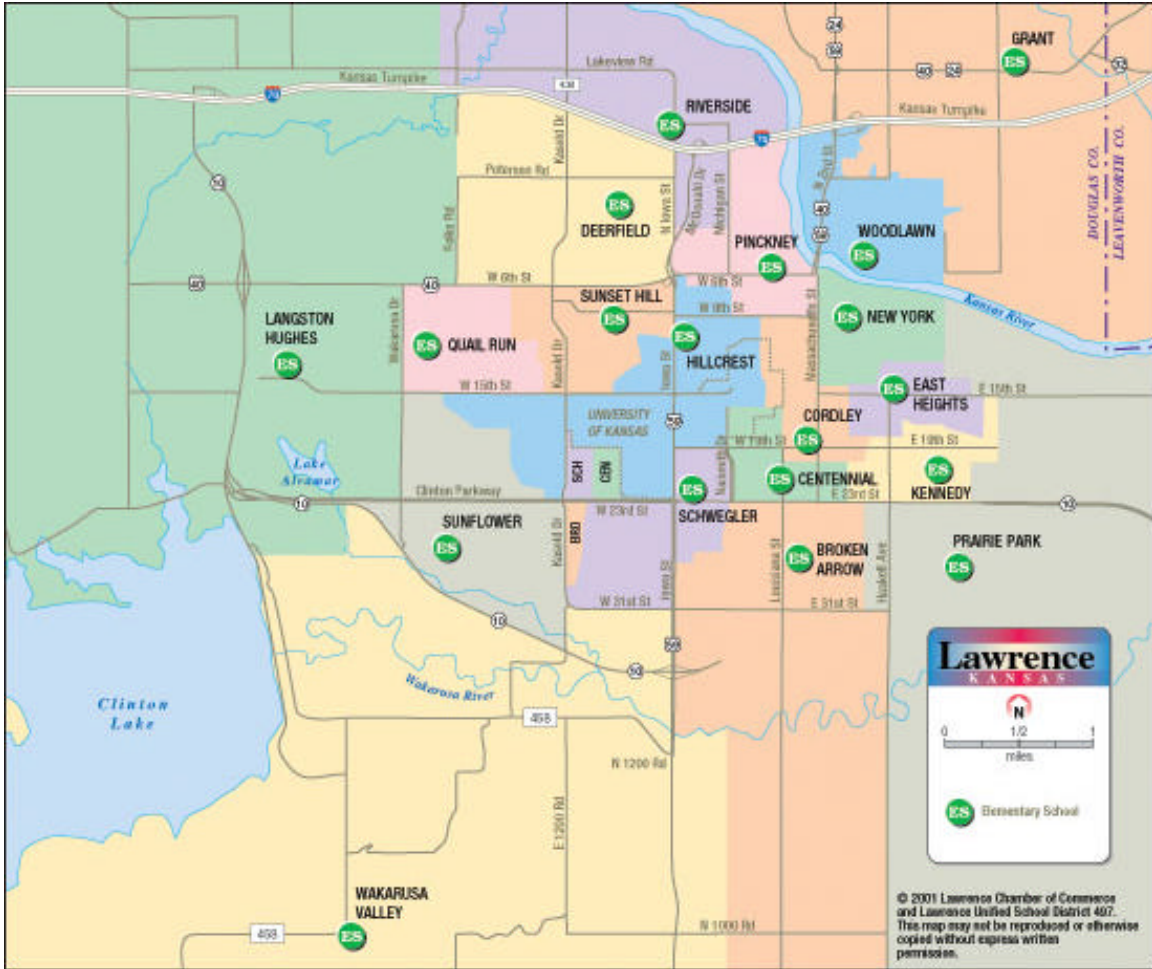


Figure 6 Elementary School Boundaries, Lawrence Public Schools.

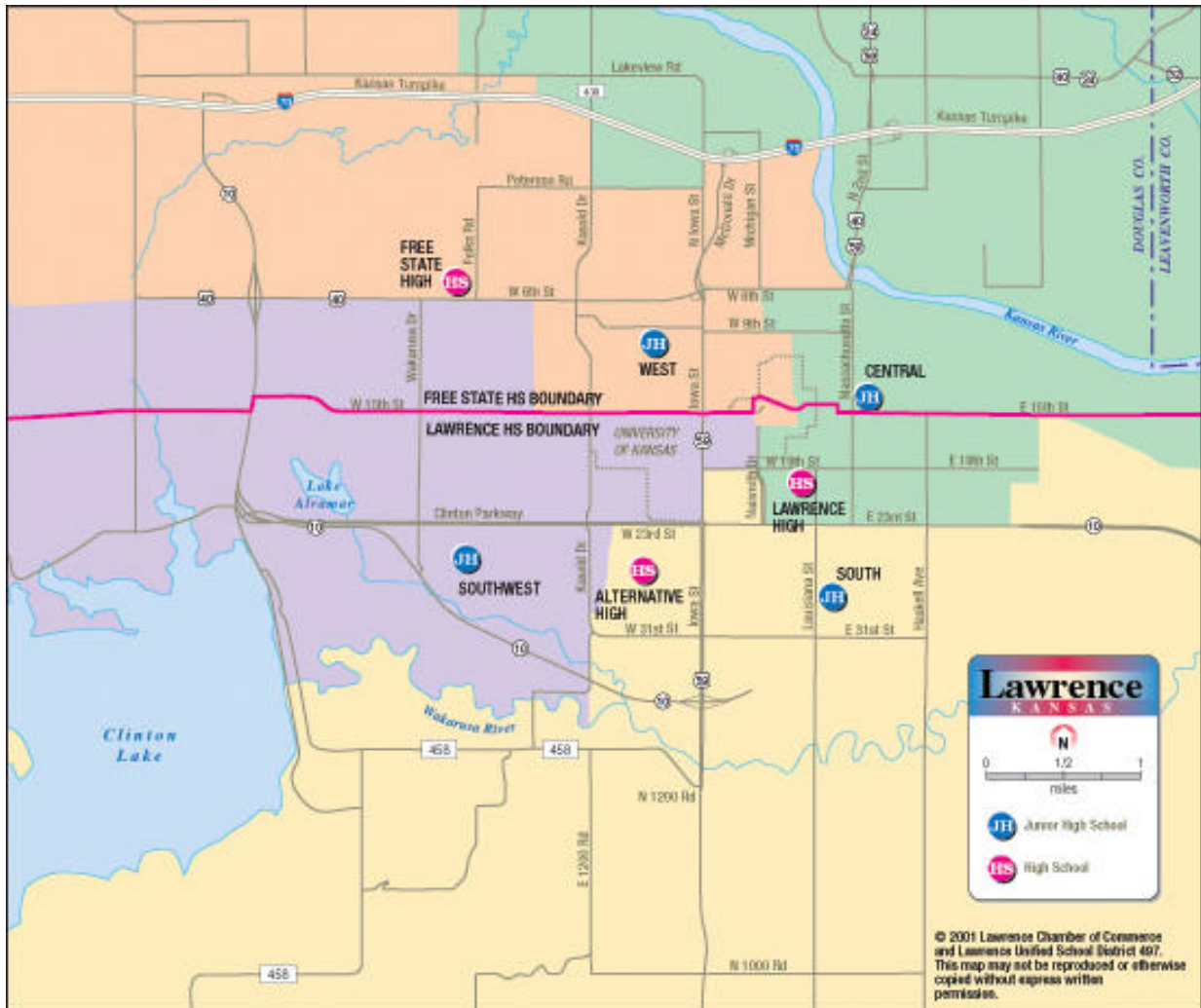


Figure 7 Secondary School Boundaries, Lawrence Public Schools.

Clearly attendance boundaries have been adjusted to deal with a variety of issues over the years. One way to deal with school capacity issues is through the adjustment of attendance boundaries. Figure 8 identifies the schools with capacity issues.

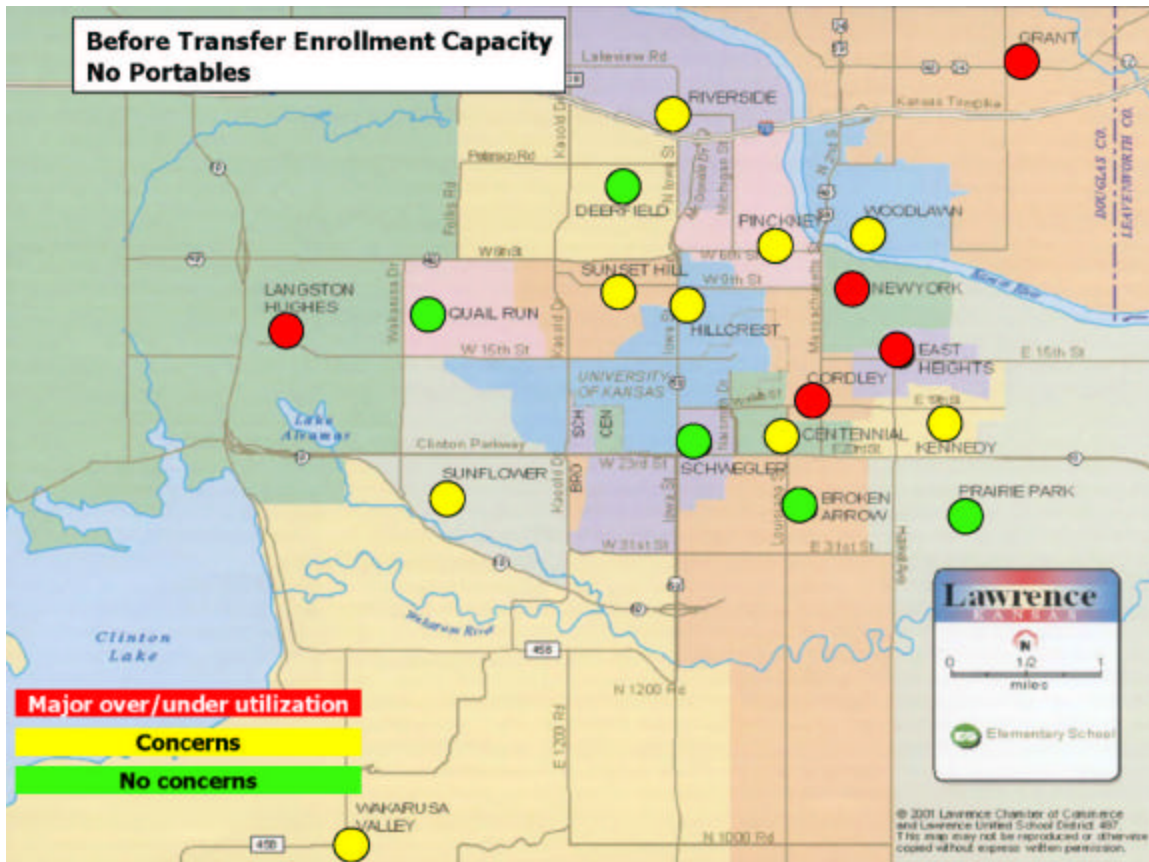


Figure 8 Capacity Issues in Existing Schools, Lawrence Public Schools.

Note that each of the schools shown in red actually has an UNDER utilization concern. Only Deerfield is near capacity, and current figures show that it is exactly at capacity, not over it. Grant and Langston Hughes are each somewhat isolated, indicating that major boundary adjustments are likely to involve increased busing. Most of the other schools with capacity issues are relatively near other schools. Although school administrators once attempted to draw elementary school attendance boundaries to ensure that all children were within a 6-block walk, that is no longer practicable with today's smaller family sizes, aging neighborhoods around many schools, and, in developing areas, lower density development patterns. Further, many school administrators today seek to build elementary schools with increased facilities, and those schools in turn often must serve larger populations than can live within walking distances.

One issue that at least some school planners are considering today is the problem of building for the peak. Planners once dealt with the issue of neighborhood schools and parks as though the number of children per household in an area would be constant and that a long-range facility size could be determined from that number. As neighborhoods age, however, and some parents without children remain in family neighborhoods, there is a thinning of population. Clearly a neighborhood school will experience a peak period, just as a road or stormwater system does. The difference is that the peak period for the school will be measured in years.

In considering the adequacy of schools under a state law dealing with adequate public facilities in Maryland, local planners deal with schools in groups and do not consider the schools so

inadequate as to require denial of development approvals until the entire group of schools exceeds its design capacity by as much as 15 percent.¹⁰⁷

Another approach to dealing with the peak is to adjust attendance boundaries as enrollments change. Such an approach may be adequate in a community the size of Lawrence. In some larger communities, however, hundreds of acres may develop in the same decade, served by two or three or more neighborhood schools with adjoining attendance boundaries. They are likely all to experience roughly the same peak period, meaning that all will begin to lose enrollment together. In such a situation, the adjustment of attendance boundaries is not an adequate tool to deal with the capacity issue – unless the district wants to bus more students over longer distances. Thus, at least some school planners are discussing the planned use of portable classrooms to meet the peak population period of 15 years or so out of the probable 50- to 75-year life of a school. The planned use of portable classrooms can include installation of a permanent connector corridor with adequate HVAC and other connections for the units, so that the portable classrooms will be more substantial and more a part of the school.

Current Local Policies and Regulations

The City-County Subdivision Ordinance currently provides:

PARKS, PLAYGROUNDS, SCHOOLS, OPEN SPACE, PUBLIC FACILITIES

The planning commission shall encourage the donation, reservation, or dedication of sites for parks, playgrounds, schools, open space and other public facilities.¹⁰⁸

Relevant State Law

Golden v. City of Overland Park, 224 Kan. 591, 584 P.2d 130 (1978), the Kansas Supreme Court noted the importance of conformity to the comprehensive plan as a factor to be considered in considering a change of zoning. This case is probably not a relevant consideration in considering APF standards for schools, because the relationship between *Horizon 2020* and the physical planning for schools in Lawrence is relatively weak; for the rest of Douglas County, there is essentially no foundation for physical planning for schools set out in the plan.

Policy Questions Related to the Adequacy of this Facility:

20. Should Lawrence and/or Douglas County offer to work with the local school districts to establish LOS standards for schools?
21. Should such LOS standards should be used as goals for construction and financing programs or whether they should also be factors in considering the approval of proposed developments?
22. Should the City and/or County take other steps to encourage development where there is land available in the attendance boundaries of some of the currently under-utilized schools?

¹⁰⁷ See, for example, Montgomery County Code, §33A-15(c)(1)(B)(3) [110 percent of capacity of cluster of schools]; and Harford County Code §267-104.B.(1)(a) [120 percent applied to affected school].

¹⁰⁸ Subdivision Ordinance, §21-604.

Public Safety

Practical and Policy Considerations

Although a few communities include public safety concerns in the establishment of APF regulations, for a larger community, the expansion of public safety is largely a function of money. In most cases, new development should generate new tax revenue that can finance the hiring of additional personnel and the acquisition of additional equipment.

The one exception to that statement relates to fire and emergency medical services. Responses to fires and medical emergencies come from fire stations, which are place-based. The critical LOS measure is response time. Response time is obviously a direct function of distance. Thus, it is generally easier to meet the established LOS for new development that is closer to a fire station than for a new development that is further away.



As a community expands, it obviously must add fire stations. Adding a fire station is much more complex than simply extending a major sewer line, however. Adding a fire station means building the facility, stocking it with equipment and then staffing it for 8,760 hours per year; for the Lawrence-Douglas County Fire Department, that translates into three shifts plus support staff, multiplied by the number of people on a shift. Thus, municipal budget officers prefer to limit the addition of new fire stations to the minimum necessary.

Where development goes can make a big difference in response times. The current Capital Improvements Plan for the City calls for construction of a new Station Number 5 and relocation of Station Number 4, both indications of the pressures of growth.



Figure 9 Lawrence-Douglas County Fire and Medical, Station No. 4 (slated for relocation).

As with water service, establishing LOS standards for fire protection is complicated by the multiplicity of providers:

- Lawrence-Douglas County Fire and Medical, also serving Grant Township
- City of Baldwin City
- City of Eudora
- City of Lecompton
- Clinton Township
- Eudora Township
- Willow Springs Township
- Wakarusa Township
- Palmyra Township.

Horizon 2020 acknowledges the significant differences among these fire services, noting that Lawrence intends to maintain its #2 rating, which requires a relatively rapid response time, and that a LOS of a four-mile service radius is acceptable for rural departments but cannot be met in all locations.¹⁰⁹

Current Local Policies and Regulations

Horizon 2020 deals with fire protection for the City and County separately, which is entirely appropriate. Regarding the City, it notes that “The City of Lawrence currently carries a class #2 fire insurance rating. This overall rating is important to residents, as it relates to fire insurance costs and the overall attractiveness of Lawrence as a quality service community.”¹¹⁰

¹⁰⁹ *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, pp. 141-42, 144.

¹¹⁰ *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 141.

The plan specifically discusses the addition of one or two fire stations and the relocations of others¹¹¹, issues which are addressed more recently in the current Capital Improvements Plan.

Regarding fire protection in Douglas County, *Horizon 2020* notes that each township provides its own fire protection services, with additional departments in Baldwin City, Eudora, and Lecompton; Lawrence serves Grant Township.¹¹² Regarding level of service, the plan provides:

In general, the optimum service radius for fire stations in rural areas is four miles. However, applying this standard to unincorporated Douglas County leaves large areas “underserved” due to the locations of the existing stations. The Plan recommends Douglas County Townships collaborate on the future location of fire service facilities to help ensure improved response times.¹¹³

The only operative provision in the City-County subdivision regulations dealing with fire protection requires a subdivider to consult with the local fire department to determine whether fire hydrants must be provided in the subdivision.¹¹⁴

Relevant State Laws

The enabling act for subdivision control provides in part:

Subdivision regulations may include, but not be limited to, provisions for: ... (4) off-site and on-site public improvements; and ... (10) any other services, facilities and improvements deemed appropriate.¹¹⁵

The enabling act for zoning provides in relevant part:

Such regulations may include, but not be limited to, provisions restricting and regulating the height, number of stories and size of buildings; the percentage of each lot that may be occupied; the size of yards, courts and other open spaces; the density of population; the location, use and appearance of buildings, structures and land for residential, commercial, industrial and other purposes; the conservation of natural resources, including agricultural land; and the use of land located in areas designated as flood plains and other areas, including the distance of any buildings and structures from a street or highway.¹¹⁶

¹¹¹ *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, pp. 141-42.

¹¹² *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 144.

¹¹³ *Horizon 2020: The Comprehensive Plan of Lawrence and Unincorporated Douglas County*, rev. ed. 1998, Ch. 10, p. 144.

¹¹⁴ Subdivision Ordinance, §21-707.

¹¹⁵ Kan. Stat. Ann. 12-749(b).

¹¹⁶ Kan. Stat. Ann. §12-753(a).

Although nothing in this language refers specifically to fire protection, one of the original purposes of zoning was to limit the risks from fire by limiting density and regulating the location of buildings.¹¹⁷

Policy Questions Related to the Adequacy of this Facility:

23. [In the County] should certain types of nonresidential development -- such as institutional uses (schools, religious institutions), medical care facilities (hospitals, nursing homes), and/or major employers be allowed only in locations within a specified response time of existing fire stations?
24. [In the County] should multi-family or even large single-family developments be allowed only in locations within a specified response time of existing fire stations?
25. Should the City establish boundaries within which development would be encouraged – and development outside those boundaries is discouraged or limited – based on response times from existing fire stations? Note that this is the tacit policy in the City of Lawrence already, although it is not explicit.

¹¹⁷ Although the current version of the Kansas enabling act no longer contains language referring to this purpose, the City of Lawrence Zoning Ordinance does include such a reference in its purpose statement:

(d) Secure safety from fire, panic, and other dangers;

Lawrence City Code, §20-302(d).

Decisions and Recommendations [partial and preliminary]

Introduction

This report is being developed under a three-phase contract with Duncan Associates. Task 2 is the “analysis” task and includes a preliminary set of recommendations. Task 3 will include a final set of policy recommendations and an implementation checklist; Task 3 can be developed only with further consultation with local officials, based in significant part on the “questions raised” below.

Overarching Issues

Use of Adequate Public Facilities Standards

As this report makes clear, *Horizon 2020* provides LOS standards or guidelines for most public facilities. Local officials currently follow *Horizon 2020* to a significant extent in developing capital plans and in negotiating for improvements to be provided by developers. In other words, Lawrence, and, to a lesser extent, Douglas County, have adopted LOS standards for public facilities and already use them. The real question thus is not whether to develop such standards but **whether to make them a criterion in the review and approval of land developments.**

Legal Status

To the extent that the City and/or County determine that they should rely on one or more LOS standards for public facilities as a basis for determining whether to approve particular land developments, it will be important to build those standards into the subdivision regulations, which are currently under revision by Duncan Associates. The law in Kansas supports reliance on the comprehensive plan itself as one of the factors to be considered in determining whether to approve or disapprove a subdivision.¹¹⁸ The Kansas Supreme Court has held squarely that:

The subdivision regulations and the authority of the planning commission to adopt and alter a comprehensive plan under the current law require the planning commission to exercise considerable discretion. Under the current law, approval of a plat is not a ministerial act and may not be compelled though mandamus.¹¹⁹

Nevertheless, *Horizon 2020* totals 182 pages, plus a number of maps. It includes a combination of background information, analysis, very general policies and, as indicated in this report, some specific criteria to be used in making decisions. Nothing about the plan makes it an ideal document to use as a checklist for development review. Thus, to the extent that the City and/or County wish to rely on some of its level-of-service and locational standards, the safest approach from an administrative view is to incorporate those standards into the subdivision ordinance. Further, the act of including them in the ordinance puts developers on notice that they exist.

¹¹⁸ . See *Rodrock Enters. L.P. v. City of Olathe*, 28 Kan. App. 2d 860, 21 P.3d 598 (2001).

¹¹⁹ . *Rodrock Enters. L.P. v. City of Olathe*, 28 Kan. App. 2d 860, at 862-63, 21 P.3d 598 at 601 (2001).

Performance or Design and Locational Standards

A traditional APF ordinance sets out performance standards and measures the impacts of new developments against the capacities of existing systems to determine whether a proposed development can meet the objective standards.

As suggested throughout this report, in many cases there are design-based alternatives to APF standards – requiring that certain types of development occur only in specific locations or only if they meet specific design standards, such as connection to a public sewer system.

If considering the implementation of the policies of *Horizon 2020* regarding the availability of public facilities, the City and County must determine whether to use pure performance standards, design and locational standards, or a combination of the two. The questions presented in the next section offer both alternatives.

Rural Water Policy

The City of Lawrence currently limits the growth in the number of meters of some of its rural water treatment customers. Although originally adopted out of concern that the City might be near its effective treatment plant capacity, the effect of these agreements is now to limit growth in development depending on service from these districts. Regardless of the original purpose, this policy has become, at least in part, a growth shaping tool; it also has some capacity allocation elements to it. It is not, however, an APF policy. The City should work with the County and with rural water districts to resolve the apparently conflicting policies regarding rural development (which seems to be allowed relatively freely) and the limits on the availability of water treatment to serve that development. Because the rural water districts provide their own water for treatment, this is not a serious long-term capacity issue to the City. It is a planning and policy issue. The current City policy is entirely rational, but it is not entirely consistent with the effect of other policies of other entities making decisions in the County.

Initial Policy Discussions

At an August 2002 meeting of the City Commission, the Planning Commission and the Metropolitan Planning Commission, the commission members reviewed the following questions. To the extent that the session resulted in probable answers to these questions, they are set out below in *italics*. The material in italics has been synthesized by the consultant from comments at the meeting. There was no formal voting regarding any of these issues. No formal decisions of any kind were made. The purpose of identifying consensus positions at this time is largely to determine which issues should be studied further and brought back to the Commissions for consideration, supported by more information and analysis.

Questions Affecting Development Regulation

1. Should the City consider denying development approval at the subdivision or PUD stage to some or all types of development, based on the lack of availability of adequate public facilities for the following facilities – noting that existing laws and ordinances already prevent connection of buildings to the system if the service is not adequate. The effect of this change would be to move the control of the issue to an earlier stage of the process.
 - If the answer is “yes,” which types of development should be considered?

- Commercial development [larger than __,000 square feet]?
- Industrial development [larger than __,000 square feet]?
- Institutional development, such as religious institutions, nursing homes [larger than __,000 square feet]?
- Multi-family residential development?
- Residential subdivisions [larger than __ lots]?
- If the answer is “yes,” which facilities should be considered?
 - Water service
 - Requiring adequate water service to meet City’s existing pressure policies?
 - Sewer service
 - Requiring that development be allowed only where it can be served by gravity flow through facilities that tie logically into the long-range master wastewater plan?
 - Fire protection
 - Requiring that certain types of development be located within a specified response time of a fire station?

There was clear interest in pursuing the adoption of some sort of APF standards for all of these facilities and for most significant development. The discussion did not reach the stage of determining what thresholds should apply for particular types of development.

2. Should the City consider a policy of denying development approval based on the availability of capacity in the following systems?
 - If the answer is “yes,” which types of development should be considered?
 - Commercial development [larger than __,000 square feet]?
 - Industrial development [larger than __,000 square feet]?
 - Institutional development, such as religious institutions, nursing homes [larger than __,000 square feet]?
 - Multi-family residential development?
 - Residential subdivisions [larger than __ lots]?
 - If the answer is “yes,” which facilities should be considered?
 - Roads
 - Based on Level-of-Service on the road?
 - Should that policy be applied in all parts of the City, or should some areas, such as the Downtown, be treated differently?
 - Schools

- Based on capacity of buildings actually serving area affected by the proposed development?
- Based on capacity of entire district or of a “cluster” of schools within it?
- Parks?
 - Based on proximity to neighborhood parks?
 - Based on available land area per person in neighborhood parks within specified distance of development?

There was also clear interest in adopting this policy for roads and schools, although it should be noted that there is currently excess capacity in the Lawrence schools as a whole. There was no discussion of parks in this context; because of the extensive system of neighborhood parks already established in the City, the park issue may not be a critical one in considering APF regulations.

3. Should the County consider denying development approval to some or all types of development, based on the lack of availability of adequate public facilities?
 - If the answer is “yes,” which types of development should be considered?
 - Commercial development [larger than __,000 square feet]?
 - Industrial development [larger than __,000 square feet]?
 - Institutional development, such as religious institutions, nursing homes [larger than __,000 square feet]?
 - Multi-family residential development?
 - Residential subdivisions [larger than __ lots]?
 - If the answer is “yes,” which facilities should be considered?
 - Roads
 - Based on design and surface of the road?
 - Based on Level-of-Service on the road?
 - Water service
 - Requiring connection to a public water system?
 - Requiring adequate water service to meet fire flow needs?
 - Sewer service
 - Requiring that certain types of development be allowed only with immediate or planned connections to public sewer?
 - Fire protection
 - Requiring that certain types of development be located within a specified response time of a fire station?

- Requiring that certain types of development be allowed only if there is adequate fire flow available to serve it?
- Schools
 - Based on capacity of buildings actually serving area affected by the proposed development?
 - Based on capacity of entire district or of a “cluster” of schools within it?
- Parks?

There appeared to be clear interest in some type of locational restrictions for major institutions and, possibly, other types of development in the County, with an emphasis on the quality/capacity of the road and the availability of adequate water for fire-fighting purposes. There did not appear to be significant interest in considering sewer, school or park issues in reviewing the location of new development in the County.

Questions Affecting Exactions Policies

4. Is the existing Development Policy serving the City satisfactorily?
 - What should be the policy for paying for roads that form the boundary of a property proposed for development?
 - What should be the policy for paying for infrastructure that is immediately necessary to serve one development but that will make other properties developable?
 - Should the City have an explicit policy on accepting interim or incremental facility improvements under its Development Policy?

Although the results with the current Development Policy have been very good, there was clear consensus that there are opportunities for improvement, particularly where new development increases the intensity of activity in partially developed areas. There was some discussion of using impact fees or taxes in selected areas to support specific improvements (particular roadways or even major intersections). There was also discussion of use of a City-wide impact fee, with a reduced fee schedule for redevelopment in core areas, where the new development is consistent in scale and intensity with existing development in the area. There was further discussion of the possibility of enhancing the existing Development Policy with recoupment provisions for developers that provide major improvements.

5. Should the City consider broader use of development or “impact” fees as an alternative to the adopted Development Policy?

See Commentary immediately above.

6. Although the County operates only a limited number of public facilities, should it consider the adoption of exactions policies to ensure that developers make appropriate contributions to the costs of capital facilities provided by the Townships, the City and other entities?

The discussion did not reach this issue, although there was clearly a consensus of concern about finding ways to improve rural roads that are significantly affected by new development.

Questions Affecting Planning and Public Facilities

7. Is the comprehensive plan adequately considered in the development of capital improvements programs for the City? For the County?

The City's water and wastewater planning – and the County's cooperation in financing some wastewater improvements – appear to be closely tied to Horizon 2020. Although the Planning Commission reviews other capital expenditures and comments on them, there appear to be some opportunities to improve the coordination of capital expenditures by multiple agencies to accomplish plan goals.

County officials clearly pay attention to Horizon 2020 in general but acknowledge that there are opportunities for improvement in relating capital planning to Horizon 2020.

8. The City has periodically made investments to lead development rather than simply to respond to it. Should the City continue that policy, expand it (by making more such investments), or reduce it?

There was clear support for this approach and encouragement for the City to continue. Part of the discussion of recoupment policies (noted above) was to provide an additional means of leveraging private financing to accomplish these same goals; a recoupment policy could be designed to provide reimbursement only for capital projects that directly advance the planning goals set out in Horizon 2020.

Detailed Policy Questions

This section recaps the complex policy questions listed throughout the policy analysis of APF regulations for various facilities. This list of questions is essentially a checklist for the development of local APF policies for these facilities – or for a determination that there should not be formal APF policies for one or more such facilities.

At an August 2002 meeting of the City Commission, the Planning Commission and the Metropolitan Planning Commission, the commission members reviewed the Major Policy Questions – responses to those are presented in the preceding section. In the course of discussing those over-arching questions, however, some of the detailed questions posed in this report were answered, either explicitly or implicitly. To the extent that the session resulted in probable answers to these more detailed questions, they are set out below in *italics*. The material in italics has been synthesized by the consultant from comments at the meeting. There was no formal voting regarding any of these issues. No formal decisions of any kind were made. The purpose of identifying consensus positions at this time is largely to determine which issues should be studied further and brought back to the Commissions for consideration, supported by more information and analysis.

1. Should certain types of development – particularly larger residential subdivisions – be allowed only in locations that can be served by public wastewater treatment systems?

This is already City policy; there appeared to be little interest in making this County policy.

2. Alternatively, should developers of residential subdivisions above a certain size that are built with septic tanks within any part of the UGA be required to plan for an ultimate transition to public sewer?

There was certainly interest in this approach but some skepticism about whether it is feasible, given past problems with ‘dry lines.’

3. Should City and/or County development regulations be modified to ensure that, within the Primary Growth Area (where public sewers are required), APF regulations for wastewater treatment capacity are imposed at the time of subdivision (or other) development review, and that available capacity then be reserved for approved projects?

Consensus answer would appear to be yes.

4. [In the County] should certain types of nonresidential development -- such as institutional uses (schools, religious institutions), medical care facilities (hospitals, nursing homes), and/or major employers be allowed only in locations with adequate water pressure and supply to meet City or comparable standards?

Consensus answer would appear to be yes.

5. [In the County] should multi-family or even large single-family developments be allowed only in locations with adequate water pressure and supply to meet City or comparable standards?

Discussion did not reach this issue, but discussion of related issues would suggest that there may not be much support for this in the County.

6. Should the City formally establish boundaries within which development would be encouraged – and development outside those boundaries be discouraged or limited – based on pressure planes that can be served by existing facilities or facilities shown in adopted capital improvement plans?

This is essentially existing policy. A major issue to be faced by the City will be the implications of the decision on location of the new wastewater treatment plant for growth patterns.

7. Should City and/or County development regulations be modified to ensure that APF regulations for water pressure and flow are imposed at the time of subdivision (or other) development review, and that available capacity then be reserved for approved projects?

In the City, yes. In the County, probably no.

8. How will Douglas County respond to the treatment requirements for stormwater runoff in developing areas?

Discussion did not reach this issue.

9. What stormwater designs are suggested by the policy response to the treatment requirements?

Discussion did not reach this issue.

10. Are the City's current stormwater policies adequate to ensure that new development will be adequately served with stormwater management and will not overload the systems that serve existing neighborhoods?

Discussion did not reach this issue.

11. Is the current LOS standard of "D" a reasonable LOS standard for all or most roads in Lawrence and Douglas County?

This issue was discussed but not resolved.

12. Should the City of Lawrence consider adopting a different LOS for selected streets downtown or for the entire downtown area, recognizing that success of the downtown will also continue to mean congestion in the downtown?

This issue was discussed but not resolved.

13. Is it reasonable and/or realistic to expect to achieve LOS "D", or another adopted standard, 24 hours per day, or should the adopted policies be amended to anticipate operation below the adopted LOS for limited periods each day?

This issue was discussed but not resolved.

14. If Lawrence and Douglas County adopt level-of-service standards for major roads, should the effect of proposed development on those standards become a criterion under which new developments are evaluated; alternatively, should the LOS standard simply be used as a basis for transportation planning, as it is now?

There was considerable support for at least considering the formal adoption of such standards as part of the regulatory system.

15. If Lawrence and Douglas County adopt APF regulations for roads and apply them to new developments, should those standards be used as the basis for denying some development approvals, for asking developers to reduce density, or for negotiating with developers over the provision of road improvements that are likely to help mitigate the demand from the proposed development? If the answer to this question is affirmative, should the peak-hour load be considered in determining the LOS that can be used to deny a development?

It appeared to be a consensus opinion that, if APF standards are adopted, they should be used as a development review criterion, which could lead to development approval, approval with conditions or denial..

16. Should Douglas County adopt standards requiring that certain types of development be located only along paved roads meeting City or some other established quality standard?

There was considerable support for at least considering the formal adoption of such standards as part of the regulatory system.

17. Should Lawrence adopt the *Horizon 2020* LOS standards for parks as criteria to be used in the review of subdivisions?

This issue was discussed but not resolved; this appears to be one of the less pressing APF issues, because of the long-range planning by the Parks Department and the existing support for parks through the sales tax.

18. If the City includes such standards in the subdivision ordinance, should the purpose of those standards be to provide a criterion for approval or denial of a subdivision, or should they simply provide a basis on which to seek developer participation in provision of park land?

See immediately preceding commentary.

19. What role, if any, should the availability of parks play in the County's review of subdivisions?

This issue was not seriously discussed.

20. Should Lawrence and/or Douglas County offer to work with the local school districts to establish LOS standards for schools?

There was consensus support for involving interested school districts in the long-range facilities planning process, to ensure geographical consistency in capital investment policies – that is, to ensure that, if one entity encourages development in an area by making capital investments in that area, it should work with other facility providers to ensure that capacity in those facilities will also be available when needed.

21. Should such LOS standards should be used as goals for construction and financing programs or whether they should also be factors in considering the approval of proposed developments?

The principal interest regarding schools was in coordinating planning efforts with them. There was no serious discussion of attempting to impose APF regulations related to schools or to adopt exactions policies for school sites.

22. Should the City and/or County want to take other steps to encourage development where there is land available in the attendance boundaries of some of the currently under-utilized schools?

Although this specific issue was not discussed, an affirmative answer seems to be implied from the strong interest in coordinating capital facilities planning with the schools.

23. [In the County] should certain types of nonresidential development -- such as institutional uses (schools, religious institutions), medical care facilities

(hospitals, nursing homes), and/or major employers be allowed only in locations within a specified response time of existing fire stations?

The related issues of ensuring that such institutions are located on improved roads and in areas with adequate water for fire fighting were discussed and there was significant support for considering such standards; this specific issue was not discussed.

24. [In the County] should multi-family or even large single-family developments be allowed only in locations within a specified response time of existing fire stations?

It did not appear that there was support for addressing this issue at this time.

25. Should the City establish boundaries within which development would be encouraged – and development outside those boundaries be discouraged or limited – based on response times from existing fire stations?

This is the City's intended policy, as a sub-set of its goal to maintain its excellent ISO fire rating. The practical implications for this policy, however, should be reviewed as part of the long-range planning related to the UGA, annexation plans and expansion of the wastewater collection system related to a new sewage treatment plant.

Recommendations

This section contains the consultant's recommendations for "next steps" to pursue the issues that appeared to interest the Commissions as topics of further policy discussions.

Immediate Steps

These steps are ones that can be implemented within a few months. They are based on current public policies, logical extensions of those policies, or positions apparently supported by a majority of officials in discussions of earlier versions of this report.

Improvements to Planning for Development and Public Facilities

[City] Senior city administrators should meet with the Planning Commission and its senior staff to develop a process through which the MPC can be more proactively involved in the existing capital facilities planning process. Although the MPC currently reviews proposed facilities plan, the goal should be to involve the commission in making suggestions and actually helping to develop the plan in general conformance with Horizon 2020.

[County] Senior county administrators should meet with the Planning Commission and its senior staff to develop a process through which the MPC can become involved in the existing capital facilities planning process. With the County, also, the goal should be to involve the commission in making suggestions and actually helping to develop the plan in general conformance with Horizon 2020.

[City and County] Continue quarterly meetings with school administrators and board members and use some of those sessions to determine how school capital siting and

major school construction can be coordinated with planning for roads, water, wastewater and other public facilities – so that facilities essential to support new development become available in targeted areas concurrently with that development.

[City and County] Ensure that Collector Plan, currently included in working drafts of 2025 transportation element, is adopted.

[City] Conduct a separate workshop between the City and Lawrence Public Schools to discuss whether there are ways that the City might use its existing policy of investing in roads and other improvements as a technique to lead development (or redevelopment) into some areas in which the schools currently have excess capacity.

Initial Steps in Adopting Adequate Public Facilities Regulations

[City] Formally include review of wastewater line capacity, water pressure and water fire-flow as criteria in preliminary subdivision plat review; projects with deficiencies in either service should be denied or only conditionally approved.

[City] Establish accounting system to reserve capacity in wastewater and water systems for approved projects for time period reflected in project approval, with a cushion of one to two years. Consider imposing an administrative fee to recover record-keeping costs.

[City] Adopt current planning standard of a 1-mile service radius for neighborhood parks of at least 5 acres as an APF standard to be considered as a criterion for review of residential developments at subdivision review stage. See related long-term recommendation.

[City] Require that proposed subdivisions include continuation of arterial and collector roads where they pass through or along lands proposed for subdivision; standards should allow some deviations in alignment for collector roads but should ensure continuity.

[County] Require that new institutional uses (schools, houses of worship), nursing homes, other residential uses with more than 20 residents at one location, and nonresidential uses which will regularly be occupied by 20 or more people to be located: a) along arterial roads improved to County standards; and b) within 300 feet of a water line of at least 4 inches in diameter or of a pond or lake providing a source of at least 10,000 gallons of water.

Improvements to Public Facilities Financing

[City] Maintain current Development Policy, with one immediate improvement. In dealing with roads and drainage, it should be modified to allow in selected cases a payment by a developer of a fee for development-related improvements, with the fee to be held by the City in escrow and used within a specified period as part of a larger project to implement improvements to the designated intersection[s] or road[s]. Note that the principles for handling impact fees – maintaining them in a designated fund, using them only for the specified purpose; using them within the area affected by the development, and using them within a reasonable period of time – should be followed in handling these funds. There is a long-range recommendation for the replacement of this system with a true system of impact fees for roads, but this modification would serve as an interim step toward that long-range goal.

[City] Request an update analysis of water and sewer impact fees (based on existing Black & Veatch data) to provide policy context by laying out maximum justifiable fees and a range of options below that. Note that this can and should be paid from utility funds, not City general funds.

Further (Long-Range) Steps

The steps listed here would appear to be consistent with adopted plans and policies. They will take longer than the ones listed as Immediate Steps for one of two reasons (or a combination thereof): some will require further policy discussions by public officials, because of the secondary and tertiary effects of implementing the suggested policy; some will require staff or consultant support that is not likely to be available in the current (2003) budget situation in Kansas.

Improvements to Planning for Development and Public Facilities

[City] Conduct one or more workshops involving senior utilities staff and senior planning staff with members of the City Commission and the MPC to discuss the overall planning implications of the City's decision on locating a new wastewater treatment plant. Recognizing that one location may be substantially more expensive than another, it is important to consider the relative costs and benefits of the two locations related to long-term growth patterns, as well as to the more immediate concerns with engineering, water quality and finance.

Further Steps in Adopting Adequate Public Facilities Regulations

[City] Consider supplement to the "connectivity" policy supported by requirements for continuations of arterial and collector roads by implementing pedestrian and bicycle connectivity policies for most new developments.

[City and County] Conduct one or more specific workshops with MPC and City Commission to discuss implementation of APF standards for roads, considering not only the establishment of absolute standards, but also the questions of whether those should apply 24 hours every day or make exceptions for rush hour and football and basketball weekends, and whether there should be a different set of standards for some specific locations, such as downtown.

Further Improvements to Public Facilities Financing

[City] Create an impact fee system for roads, following one of three models:

- d) Implementing the fees only in developing areas of the community, with no fee applicable to redevelopment;
- e) Implementing the fees throughout the community but imposing no fee on redevelopment of the same type of use and same number of square feet as the historic use of the site (or use on a specified date); or
- f) Creating a limited number of specific impact-fee districts to finance improvements to particular arterial roads and major intersections on those roads.

As part of the feasibility study for impact fees, examine the possibility of modifying the Development policy to provide for reimbursement or recoupment agreements with

developers who provide specified capital investments, with the reimbursements or recoupments to be paid from future fees.

NOTE that it may be desirable to commission a feasibility study for the use of impact fees for such purposes. The consultant has provided these recommendations based with a good understanding of the policy and regulatory issues involved in implementing such a program but without the financial data that would be generated in such a feasibility study.

[City] Consider, in combination with impact fees, a modification to the Development Policy under which a developer proposing initial work in an area in which substantial additional development is expected may be asked to participate with the City in building facilities, or parts of facilities, meeting long-term needs in the area. This would replace the current incremental process in which a facility in the same area may be modified several times as additional developers come in. Although the primary focus on such issues at the public meetings related to roads, Utilities Department representatives expressed the need for a similar modification to the policy regarding stormwater system expansions.

[City] At a future time, authorize a feasibility study to examine the possible use of impact fees for new fire facilities. Note that this feasibility study could be combined with the one recommended next.

[City] At a future time, authorize a feasibility study to examine the possible use of impact fees for neighborhoods parks, noting that there will have to be consideration given to the level of public support for additional fees for parks purposes in light of the existing sales tax to support parks.