

Comprehensive Plan 2001

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THOROUGHFARE PLAN

## INTRODUCTION

Many factors contribute to the fact that Lufkin is primed for growth, including that it is the county seat of Angelina County and that it has historically been the most populated City in the surrounding area. The factor that is likely to contribute most to the City's future growth, however, is its location in relation to several major highways. In addition, the proposed Interstate Highway 69 alignment is just east of the City, and lies within Lufkin's ETJ in several areas. IH 69 will be a major north-south international transportation route, and will be discussed in detail later within this section.

In general, the ability of urban areas to accommodate growth is largely dependent on the efficiency of the transportation system; that is, how efficiently goods and people are moved throughout the community. Many elements of urban areas, such as the way in which development occurs, can create and/or contribute to challenges to the transportation system's efficiency. The City of Lufkin was incorporated over a century ago; the fact that the City's initial development took place prior to societal dependence on the automobile has led to the relatively complex roadway network Lufkin has today. Increasing development along major transportation corridors, such as Loop 287, U.S. Highway 59, and U.S. Highway 69, can occur due to these various elements and can affect the circulation of traffic adjacent to and

surrounding the corridor. Other key transportation corridors within Lufkin pose similar challenges, including State Highway 94 (Frank Avenue), Kurth Drive, Raguette Street, Atkinson Drive, and Angelina Street.

Coordination among local and regional jurisdictions and with the Texas Department of Transportation (TxDOT) in transportation planning is of extreme importance to the integrity of the overall transportation system. This coordination is also key in securing funding for roadway improvements and/or construction. A comprehensive thoroughfare system, both locally and regionally, that is capable of accommodating expanding vehicular traffic volumes is critical to the sustained growth and planned development of Lufkin.

## FUNCTIONS OF THOROUGHFARE PLANNING

The thoroughfare system is one of the most visible and permanent elements of the urban structure. As alignments and rights-of-way of major transportation routes are established and adjacent properties are developed, making changes to the system becomes increasingly difficult.

The Thoroughfare Plan is a guide for the integration of developments and roadways into a unified, coordinated



transportation system. It depicts not only the existing network of roads, but also anticipates the roads and thoroughfares necessary to ensure efficient movement of traffic throughout the community. The Plan is also one of the few planning tools that can be implemented within the City's extraterritorial jurisdiction (ETJ).

The Thoroughfare Plan works in coordination with the Future Land Use Plan, which identifies the locations of various land uses, potential growth areas and areas that may have specific traffic circulation needs. As a circulation framework, the Thoroughfare Plan is a functional hierarchy of roadways and thoroughfare systems. In addition to its function as a guide for the integration of development and roadways, the Thoroughfare Plan is also a guide for the programming of capital projects (i.e., prioritizing, budgeting and scheduling), and documents current and projected roadway alignments, capacities, and rights-of-way needs.

## **The Regional Traffic Circulation System**

Four major regional traffic corridors have been identified within Lufkin as follows: U.S. Highway 59, U.S. Highway 69, State Highway 94, and State Highway 103.

U.S. Highway 59<sup>4-1</sup> provides for traffic movement in a north-south direction to and through the City, allowing travel from Arkansas to Laredo, Texas; this highway traverses the communities of Burke and Diboll, which are south of Lufkin. U.S. Highway 69 provides for travel in a northwestern to southeastern direction through Lufkin, from Oklahoma to Beaumont, Texas. U.S. Highway 69 passes through the communities of Huntington and Zavalla to the southeast of Lufkin. Loop 287, which allows traffic to circumvent the inner area of Lufkin, shares a roadway designation with U.S. Highway 59 and U.S. 69 along some portions of the loop. State Highway 94 provides regional access to Lufkin from the southwest, from Groveton to the south through Hudson, just to the west of Lufkin. State Highway 103 allows for access from the northwest; this highway changes designation at the Angelina County line, becoming State Highway 7 as it continues west to the community of Kennard, and then further west to Crockett. East of Lufkin, State Highway 103 continues to the northeast through Angelina County.

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<sup>4-1</sup> The proposed Interstate Highway 69 will be discussed in detail later within this Thoroughfare Plan.



## The Local Traffic Circulation System

As previously mentioned in the Baseline Analysis, the primary catalyst for the development of Lufkin was the railroad. Therefore, much of the early development within the City is clustered around the two main rail lines, one that is oriented in a north-south direction, and one that is oriented in an east-west direction.

Loop 287 acts as the rim of Lufkin's transportation system, and the various local collector streets serve as routes that extend to and from the City center. The inner core of the City contains diverse land uses, with various residential, office, local retail, commercial, and industrial land uses. The number of ingress/egress access points along many of the roadways within this core area has resulted in circulation problems in some areas, which will be detailed later within this section.

It should be noted that most of the local traffic patterns within Lufkin are generated by the following entities or activities:

- ◆ Major employers in the area<sup>4-2</sup>, such as Lufkin Industries, Abitibi Consolidated, Pilgrim's Pride, and Brookshire Brothers;

- ◆ Local schools (i.e., Lufkin Middle School, Lufkin High School);
- ◆ Major community facilities, such as the Pitser Garrison Civic Center and the Angelina County Exposition Center;
- ◆ Medical facilities, such as the Memorial Health System of East Texas and the Woodland Heights Medical Center;
- ◆ Shopping and other retailing centers, including the Lufkin Mall and retailing within the downtown area;
- ◆ Governmental (city, county, state and federal) centers and facilities; and,
- ◆ Public areas, such as Ellen Trout Park and Zoo, the Texas Forestry Museum, the Museum of East Texas, and other public places, museums, and parks.

## FUNCTIONAL CLASSIFICATION SYSTEM & THOROUGHFARE STANDARDS

The Thoroughfare Plan is based upon a road classification system that depicts the function of every roadway in the thoroughfare system. Roadway types include freeways, major and minor arterials, major and minor collectors, and local streets (refer to **Table 4-1**). Their functions can be differentiated by comparing their ability to provide *mobility* with their ability to provide *access* to various locations.

<sup>4-2</sup> Source: City of Lufkin Website, Community Profile.

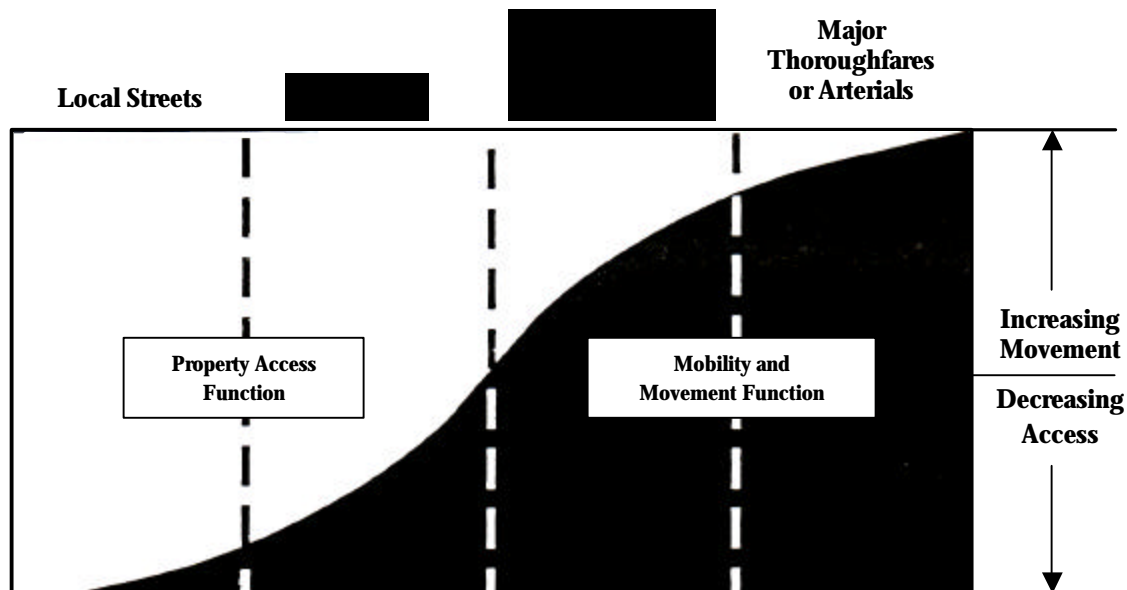


Roadways identified as arterials are designed to convey heavier volumes of traffic; therefore, they should have fewer intersections and curb cuts (driveway openings) in order to protect the integrity of the high-speed traffic flow. Arterials provide mobility, but because of the speed and volume of traffic, access to properties is extremely limited.

Collector streets are designed to funnel traffic to arterial roadways. Collectors should also provide access to adjacent land uses on a limited basis. This type of roadway can be described as providing an equal amount of mobility and access. Local streets provide the greatest access to adjacent properties, but they function poorly regarding mobility. **Table 4-1** describes the functional classification of each type of roadway in further detail.

In assessing the mobility-versus-access concept, it is important to recognize the need to protect the integrity of arterials and major collectors in their ability to function as high volume roadways. Therefore, ***the City should minimize access to and from adjacent property along major arterials by limiting the number and locations of curb cuts and by requiring the use of shared entrances to nonresidential facilities*** when possible (refer to **Illustrations 4-2, 4-3, and 4-4** within this section).

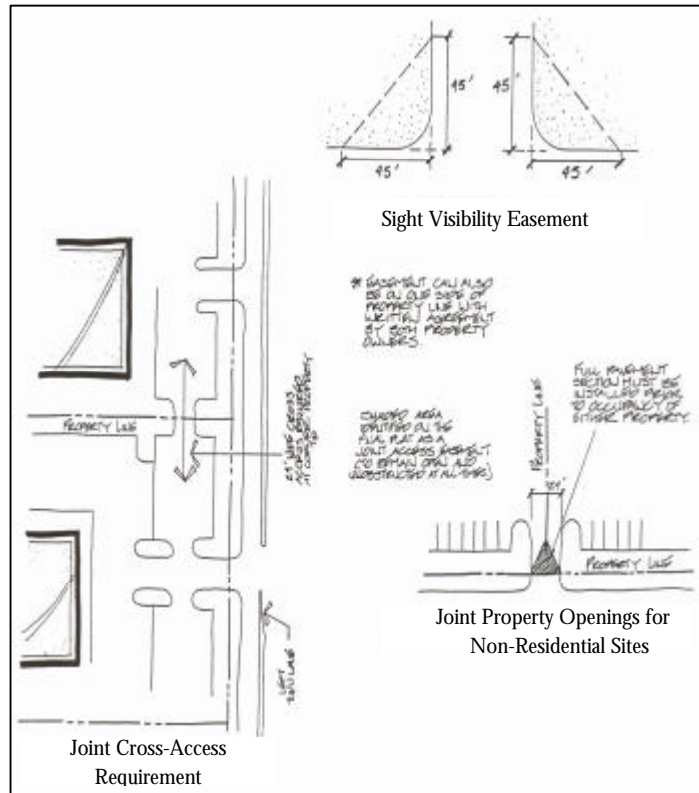
In general, a thoroughfare plan should complement land use planning and subdivision design. The diversion of traffic from neighborhoods is an example of how positive traffic-management planning can contribute to the long-term stability of land use patterns. Other benefits from



**ILLUSTRATION 4-1**  
**Functional Classification System**

transportation planning, both in the short- and long-term, include fewer urban land parcels dedicated to streets, increased property values, and decreased traffic accidents.

***It is recommended that neighborhoods be developed between arterials and collector streets so that traffic may be diverted from residential areas.*** Minor collector streets should not be used as cut-through routes, but should be configured to penetrate the neighborhoods to collect and distribute light traffic. In addition, good subdivision design should orient homes to local streets, not collectors.



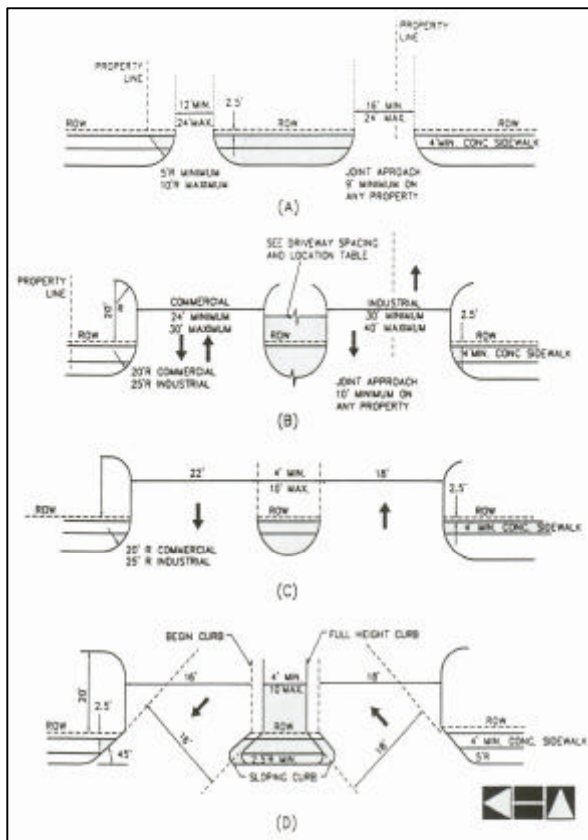
**ILLUSTRATION 4-2  
Driveway Openings**

## Freeways

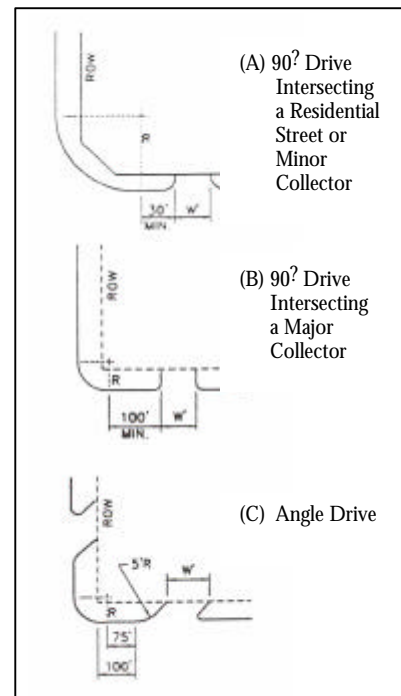
Freeways are high-capacity highways along which direct access to property is generally eliminated. Ingress and egress are controlled by access ramps, interchanges and frontage roads, as on U.S. Highway 59<sup>4-3</sup>. Construction and maintenance of freeways is not usually the responsibility of municipalities. The Texas Department of Transportation (TxDOT) and federal monies fund this type of roadway. Examples of this type of roadway in Lufkin are U.S. Highway 59 and U.S. Highway 69.

<sup>4-3</sup> Currently, controlled access onto U.S. Highway 59 is limited; the Texas Department of Transportation intends to increase access in the future – Source: City of Lufkin Staff.





**ILLUSTRATION 4-4**  
**Widths, Radii and Spacing of Driveways**



**Illustration 4-3**  
**Driveway Configurations**

**Table 4-1  
ROADWAY FUNCTIONAL CLASSIFICATIONS AND GENERAL PLANNING GUIDELINES**

<b>DESIGNATION</b>	<b>Function</b>	<b>Continuity</b>	<b>Approx. Spacing<sup>3</sup></b>	<b>Direct Land Access<sup>3</sup></b>	<b>Minimum Roadway Intersection Spacing</b>	<b>Speed Limit (mph)</b>	<b>Parking</b>	<b>Comments</b>
<b>Freeway</b> (e.g., U.S. Highway 59)	Traffic Movement	Continuous	4 miles	None	1 mile	55 to 70mph	None	Supplements capacity and arterial street system, and provides high-speed mobility.
<b>Arterial</b> (e.g., Angelina Avenue)	Moderate distance inter-community traffic; Land access should be primarily at intersections	Continuous	1/2 to 1 1/2 <sup>1</sup> miles	Restricted -- some movements may be prohibited; number & spacing of driveways controlled; May be limited to major generators on regional routes.	1/8 mile 1/4 mile on regional route	35 to 45 mph	None	"Backbone" of the street system. Usually four to six lanes.
<b>Collector</b> (e.g., F.M. 1194 - Lotus Lane)	Collect / distribute traffic between local & arterial streets; Direct land access; Inter-neighborhood traffic movement.	Not necessarily continuous.  May not extend across arterial.	1/4 to 1/2 <sup>2</sup> mile	Safety controls; limited regulation. Residential access prohibited; nonresidential access allowed with shared driveways.	300 feet	30 mph	Limited	Through traffic should be discouraged.
<b>Local</b> (e.g., Shepard Avenue)	Land Access Sidewalks	None	As needed	Safety controls only.	200 feet	30 mph	Permitted	Through traffic should be discouraged.

<sup>1</sup> Spacing determination should also include consideration of (travel projections within the area or corridor based upon) ultimate anticipated development.

<sup>2</sup> Denser spacing needed for commercial and high-density residential districts.

<sup>3</sup> Spacing and intersection design should be in accordance with state and local thoroughfare standards.



## INTERSTATE HIGHWAY 69<sup>4-4</sup>

As mentioned previously, the Interstate Highway 69 corridor is currently being planned as a major international transportation route from Laredo, Texas to Canada. The alignment of this interstate that TxDOT has proposed lies just to the east of Lufkin, giving the City a prime opportunity. Many years of planning must occur before a thoroughfare of this magnitude can be constructed; many different steps have to be taken at the federal and state levels, including environmental impact studies, engineering and alignment studies, right-of-way acquisition, and construction. TxDOT is currently in the process of surveying and studying environmental impacts to determine the final alignment, and the land acquisition process will follow.

As will be discussed within the Future Land Use Plan, the proximity of Interstate Highway 69 can be positive for the City, with two primary considerations. First, the design of this corridor should be aesthetically pleasing, thereby promoting a positive image of Lufkin. The City should work closely with TxDOT to ensure that this construction includes plans for landscaping and possibly for imprints of Lufkin's City logo into concrete supporting walls (image enhancement within major corridors will be discussed further within the *Community Image Guidelines* section). Second, land uses

within this corridor should be carefully regulated and monitored to ensure that they help to convey a positive image of the City.



**Illustration 4-5**  
An Example of a Principal Arterial

## Major Thoroughfares or Arterials

Lufkin's current Subdivision Ordinance defines a major/arterial street as: "a street which serves or is intended to serve as a major trafficway within the City, county, or both, and is intended to serve in the Master Plan as a limited access highway, major thoroughfare, parkway, or other equivalent term to identify those streets comprising the basic structure of the major street plan"<sup>4-5</sup>. The City has recognized that arterial roadways form the foundation of the thoroughfare system; examples of this type of thoroughfare include Loop 287, Frank Avenue, Lufkin Avenue, and Kurth Drive.

<sup>4-4</sup> Much of this information is from the Texas Department of Transportation website link to [www.59masterplan.com](http://www.59masterplan.com).

<sup>4-5</sup> City Ordinance No. 1775



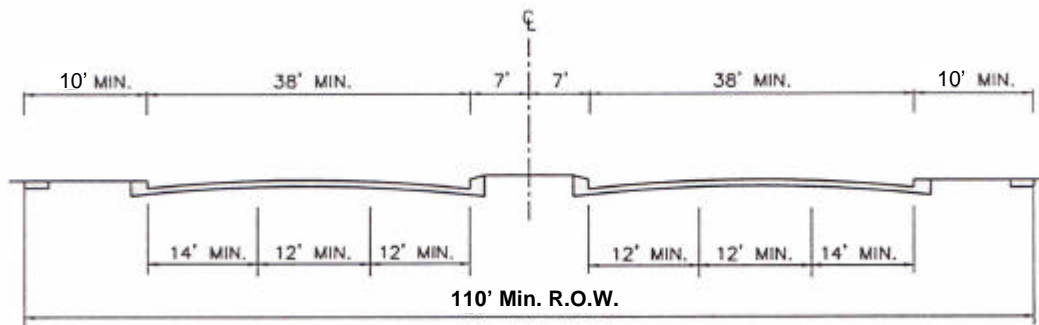


ILLUSTRATION 4-6  
Type "A" Principal Arterial

### TYPE "A" PRINCIPAL ARTERIAL

Equipped to serve approximately 40,000 vehicles daily, ***the Type "A" principal arterial*** (see **Illustration 4-6**) ***consists of 6 lanes (three lanes in each direction) with 110 to 120 feet of right-of-way.*** The center median, 14 feet in width, may be painted or raised. The flat median offers ease of access, but can be dangerous. The raised, curbed median creates a divided roadway, which is considered safer and offers the opportunity for landscaping. ***It is recommended that wherever possible, the City construct arterials with raised medians, for safety as well as aesthetics.*** No on-street parking should be permitted on this type of thoroughfare.

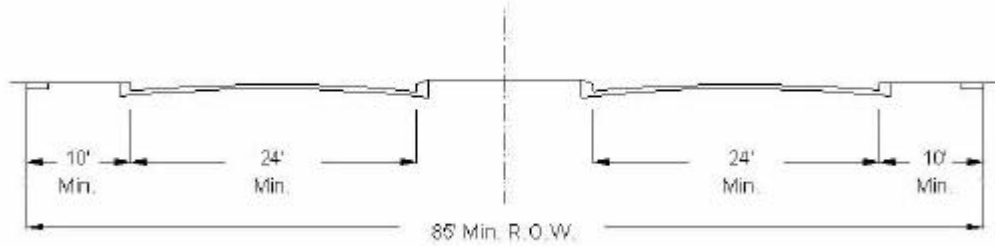
### TYPE "B" MINOR ARTERIAL

The Type "B" arterial is capable of carrying 20,000 to 25,000 vehicles per day. It consists of four lanes, and it may be divided or undivided. As with principal arterials, ***incorporation of a raised median is recommended.*** ***Right-of-way required is 85 feet, with a 17-foot-wide median.*** **Illustration 4-8** shows the cross-section for Type "B" minor arterials.



Illustration 4-7  
Example of a Minor Arterial



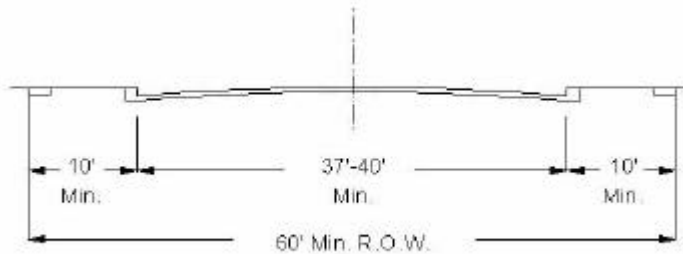


**ILLUSTRATION 4-8**  
**Type "B" Minor Arterial**

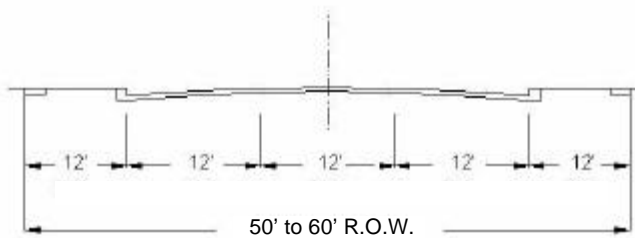
### Collector Streets

Lufkin's current Subdivision Ordinance defines a collector street as: "a street which serves or is intended to serve as the principal trafficway between large and separated areas or districts and which is the main means of access to the primary street or road system"<sup>4-6</sup>. The

collector street distributes traffic from local access streets (i.e., from residential developments to major arterials). Collector streets can be configured to discourage through-traffic movement by using offset intersections or curvilinear street design. Collectors may be used as streets internal to industrial areas, adjacent to multifamily areas, or to access elementary schools.



**ILLUSTRATION 4-9**  
**Type "C" Major Collector**

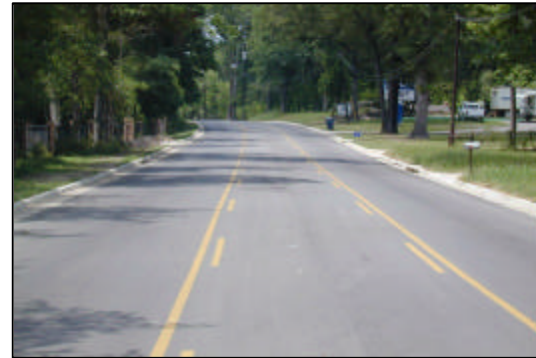


**ILLUSTRATION 4-10**  
**Type "D" Minor Collector**

<sup>4-6</sup> City Ordinance No. 1775



Collector streets consist of two lanes. Right-of-way ranges from 60 to 70 feet, with pavement width ranging from 40 to 60 feet. Typical collector right-of-way in residential developments is 60 feet, which can accommodate two moving lanes and on-street parking.



**Illustration 4-11**  
Example of a Minor Collector

**TYPE "C" MAJOR COLLECTOR**

Type "C" major collector streets are low to moderate volume facilities whose primary purpose is to collect traffic from smaller streets within an area and to convey it to the nearest principal or secondary arterial. The average daily traffic volume for this type of street is approximately 10,000 to 15,000 trips per day. **The Type "C" major collector street provides for 60 feet of right-of-way with 40 feet of paving.** Illustration 4-9 shows cross-section of Type "C" undivided major collectors.

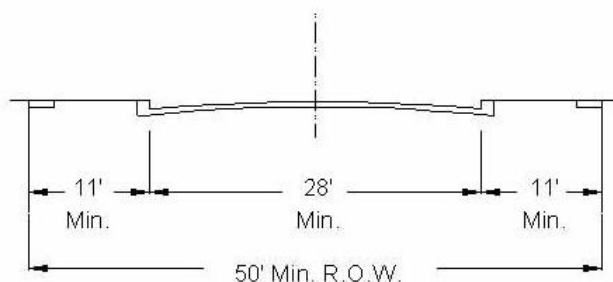
**ranging from 37 to 40 feet and middle lanes approximately 12 feet wide (Illustration 4-10).** The City has recently improved several streets to this standard. It should be noted that this type of minor collector (with the same amount of right-of-way) could also have two travel lanes with on-street parking; this would be appropriate for use in residential areas.

**Type "E" Local Street**

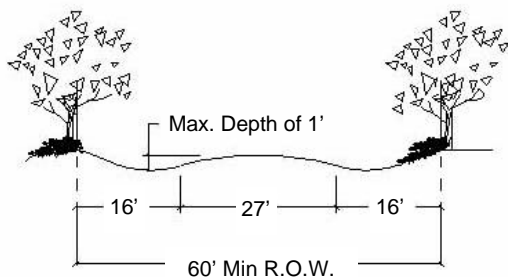
**TYPE "D" MINOR COLLECTOR**

The Type "D" minor collector street is a three-lane roadway, with one lane in either direction and a middle turn lane. This type of roadway is adequate for industrial and commercial areas. **Type "D" collector streets require between 50 and 60 feet of right-of-way, with lanes**

Structured to convey lighter traffic volume (approximately 500 vehicles per day), **the Type "E" local street consists of two lanes, 28 feet wide, with a total right-of-way of 50 feet,** as Illustration 4-12 shows. Designed to discourage cut-through traffic in residential areas, these streets are often curvilinear, discontinuous, or looped.



**ILLUSTRATION 4-12**  
Type "E" Local Street



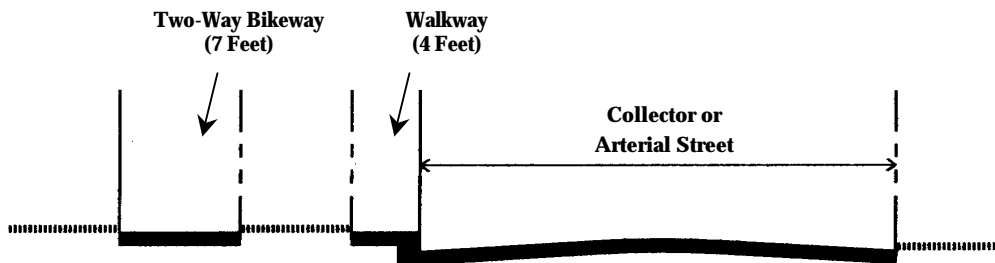
**ILLUSTRATION 4-13**  
Type "F" Rural Street

### Type "F" Rural Street

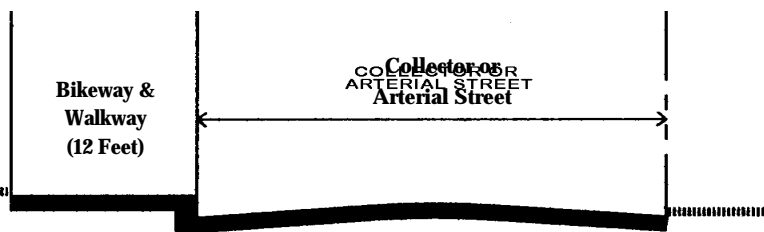
The City has many outer areas within the ETJ that are available for rural residential land use. The construction of curbs and gutters may not be necessary within large-lot developments, and therefore, **Illustration 4-13** shows a right-of-way intended for residential developments with lot sizes greater than one acre. **The Type "F" rural street consists of two lanes, 27 feet wide, with a total right-of-way of 60 feet.** A 16-foot-width on either side of the paved area allows room for swales that ensure proper drainage.

### Collectors and Arterials With Bicycle Lanes/Routes

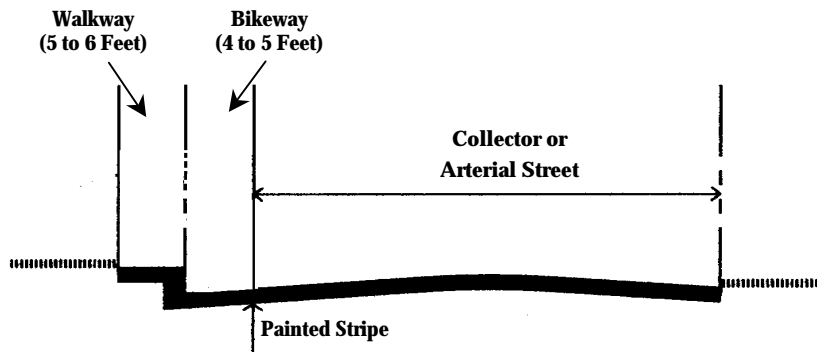
Roadways can be designed to include bicycle lanes, which requires the acquisition of additional right-of-way. Lufkin has several natural drainage or creek areas that could be used for an off-street trail system, but it will likely be necessary to utilize roadway rights-of-way in many locations if the City wants to create a bike trail system that connects various areas of the community. In many areas, the use of street pavement and/or right-of-way for bicycle transportation purposes will be possible if the roadways are properly sized and designed in the future.



**Illustration 4-14:**  
Type A: Exclusive Bikeway



**ILLUSTRATION 4-15:**  
Type B: Sidewalk Bikeway



**ILLUSTRATION 4-16:**  
**Type C: Bikelane**  
**(On same grade as roadway)**

**Table 4-2**  
**DEFINITION OF LEVEL OF SERVICE FOR ROADWAY LINKS**

LEVEL OF SERVICE (LOS)	DESCRIPTION	EXAMPLE
A and B	Light, free-flowing traffic volumes. Virtually no delays with smooth progression of traffic, and speed is generally unaffected by other vehicles. Slight decline in the freedom to maneuver from A to B.	Residential or rural streets.
C	Basically satisfactory to good progression of traffic, but at that point where individual drivers become affected by interactions with other vehicles. Light congestion, and speed is affected by the presence of other vehicles.	Urban thoroughfares at off-peak hours
D	High density, but stable, traffic flow. Speed and freedom to maneuver are restricted. Small increases in traffic flow will cause significant operational problems. This LOS is generally used to justify thoroughfare improvements.	Secondary CBD streets at peak hours.
E	Operating conditions at or near capacity level. All speeds are reduced to low, but remain relatively uniform, meaning generally not stop-and-go. Operations at this level are usually unstable, because small increases will cause severe speed reductions.	Primary CBD streets at peak hours.
F	Forced flow. Heavy congestion. Total breakdown with stop-and-go operation. Queues (i.e., vehicle stacking) at intersections on these lengths may exceed 100 vehicles.	Downtown areas usually in larger cities at the A.M. or P.M. peak hours.

Source: North Central Texas Council of Governments



## LEVEL OF SERVICE & TRAFFIC CAPACITY

*Capacity* is generally defined as the volume of traffic that a roadway can serve. *Level of Service* (LOS) takes into consideration various elements related to capacity, including speed, travel time, traffic impediment conditions, and mobility (refer to **Table 4-2**). Roadway linkages refer to actual lengths of road, the usual measure of which is the distance between intersections. The rankings range from “A” (optimum flow) to “F” (poorest traffic congestion). A Level of Service of “C” is considered the minimal recommended for roadway design; ***the City should strive to maintain a level of service “C” for local roadways***

## THOROUGHFARE PLANNING ISSUES

A number of issues must be considered in the process of developing a Thoroughfare Plan for Lufkin. First, the Plan must be compatible with the City’s Future Land Use Plan and requirements of growth. Second, it must address the integrity of existing nonresidential centers and residential areas. The Plan must balance functions of the thoroughfare system through efficient moving of traffic, and facilitate access requirements. It must consider alignments and right-of-way issues. The Thoroughfare Plan must also incorporate realistic methods of implementation

within the context of budgeting constraints.

The transportation system as it exists today in Lufkin has evolved over decades. The area of the City that is encompassed by Loop 287 is mostly developed, with rights-of-way and land uses firmly in place. Therefore, opportunities for improving traffic flow and access within the core of the City will mainly be products of street maintenance and widening, wherever possible. The existing pattern of streets is the result of street construction over different time periods, thus resulting in its relatively complex nature. Often, streets are originally built like the spokes of a wheel whereby most roads terminate in the center of a city. In Lufkin, however, some terminate Downtown but others terminate at other points. This characteristic will require careful consideration in widening or expanding the existing core roadway network.

However, in less developed areas, specifically areas within Lufkin’s ETJ, there are opportunities for the City to ensure that adequate mobility is provided with future growth. The Thoroughfare Plan, shown graphically on **Plate 4-1**, recommends several arterial and collector connections that will help to accommodate the land uses proposed. The recommendations are generally for connections between existing thoroughfares. The current proposed Interstate Highway 69 alignment is also shown.



Insert Thoroughfare Plan, Plate 4-1



Land use and roadway planning are closely linked. Just as inappropriate land uses can reduce the effectiveness of adjacent roadways, poorly planned roadways can reduce the viability of adjacent land uses. Inappropriate zoning, various types of development activity, the existence of older roadways that now carry higher traffic volumes than originally intended, and continually changing traffic patterns can have negative impacts on the City's thoroughfare system. As previously mentioned, Lufkin should ensure that adequate access (driveway) spacing standards are implemented for land uses located on arterial and major collector streets in order to promote a smooth flow of traffic and to minimize the impact of individual developments on the safe and efficient function of these roads.

In addition, building and maintaining an efficient street network requires significant investment of local resources. Careful planning is needed to ensure that Lufkin makes the most cost-effective investments in its street network. Funding is usually based upon general obligation bonds or the general fund budgeting process. The City should also continue its coordination efforts with TxDOT and the County in order to maximize the potential for shared financing, especially in outlying areas of the City.

## Proposed Arterial Roadways

As noted in the City's current Subdivision Ordinance, arterial roadways form the basic foundation of the transportation system. The provision of high-capacity, high-speed roadways will enable increased development in strategic areas of the City. Four arterial connections have been recommended and they are as follows (in a clockwise direction on **Plate 4-1**):

- 1) (North of Lufkin) From F.M. 2251 east to U.S. 59, then continuing east to the proposed I.H. 69;
- 2) (Southeast of Lufkin) From F.M. 58 east to the proposed I.H. 69;
- 3) (South of Lufkin) From F.M. 819 (College Drive) to F.M. 58 (South Chestnut Street); and,
- 4) (West of Lufkin) From F.M. 1336 to S.H. 94.

## Proposed Collector Roadways

There are numerous proposed collectors on the Thoroughfare Plan. The major collector roadway recommendations (in a clockwise direction on **Plate 4-1**) are as follows:

- 1) (Northeast of Lufkin near the proposed industrial/business park Alternative A) From the proposed arterial south to S.H. 103;



- 2) (East of Lufkin) From F.M. 325 south to F.M. 841;
- 3) (East of Lufkin) From County Road 157 to U.S. 69;
- 4) (Southeast of Lufkin) From Bartmess Drive southeast to F.M. 58 (South Chestnut Street);
- 5) (Southeast of Lufkin) Several collectors in various directions to serve the proposed industrial/business park Alternative B;
- 6) (Southern Lufkin) Two collectors (one north-south and one east-west) between Whitehouse Drive, Brentwood Drive and F.M. 58 (South Chestnut Street);
- 7) (Southern Lufkin) Two collectors (one north-south and one east-west) south of F.M. 1336 (Gobblers Knob Road);
- 8) (Southwest of Lufkin) From F.M. 1194 southeast to Live Oak Lane; and,
- 9) (West of Lufkin) From S.H. 103 (North Raguet Street) south to F.M. 1194 (Lotus Lane).

## The Transit Center

The City of Lufkin has a transportation system of buses that is provided by the Brazos Valley Transit Authority (BVTA). The success of this local transit system has created the need for a new transit center in Lufkin, specifically within the downtown area. Grant funds have already been made available to the Transit Authority, and this Transit Center will likely be constructed within

the next two years on a site in Downtown Lufkin.

The transportation system within Lufkin can be positively affected by this new Center, especially because it will allow various areas within the City to be connected by mass transit. Downtown Lufkin, the Ellen Trout Zoo, the Texas Forestry Museum, Kurth Memorial Library, the Museum of East Texas, and recreational opportunities (local parks, area lakes and rivers, etc.) can all be linked through this Transit Center, allowing visitors and residents access to these areas without the use of an automobile. In addition, increased use of mass transit within Lufkin will decrease the number of automobiles on local roadways, thereby reducing the need for maintenance and new construction of roadways.

It should be noted that a recommendation has been made within this Comprehensive Plan that convention activities, which now take place within the Civic Center located in Downtown Lufkin, should be relocated (refer to the *Public Facilities Plan* section) to a new convention center that should be constructed in close proximity to hotels, motels and restaurants, possibly in the vicinity of the intersection between Loop 287 and U.S. Highway 59.

A new Transit Center could increase the visibility of Downtown Lufkin, as well as of other areas of the City, linking tourist destinations throughout the City. ***It is***



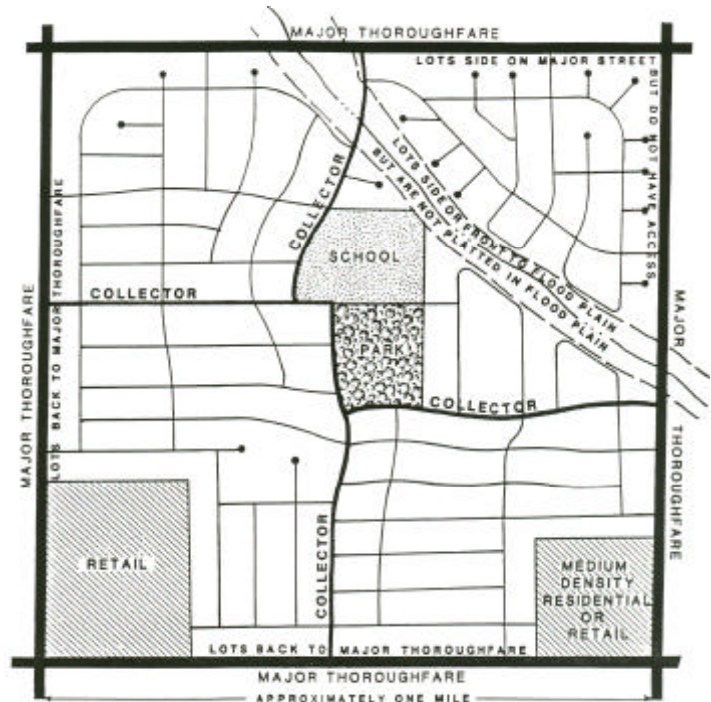
**recommended that the City use the opportunity created by this new Transit Center to link Downtown Lufkin to other areas of interest throughout Lufkin and to create increased opportunity for local residents to use a mass transit system**

neighborhoods near intersections of major thoroughfares (refer to **Illustration 4-17**). To further this objective, the Plan designates several collector roadways that are intended to serve the primary traffic from future residential development. It will be important for the City to preserve the rights-of-way recommended within the Thoroughfare Plan through the Subdivision Ordinance.

### **Relationship Between Thoroughfares & Neighborhoods**

As previously mentioned, Lufkin's initial development predated dependence on a thoroughfare system. Therefore, many of the local neighborhood streets are now carrying volumes of traffic that are higher than the volume for which they were designed. The City has been proactive in widening several of these roadways in order to accommodate these increases in traffic.

One of the primary objectives of this Thoroughfare Plan is to ensure that future residential neighborhoods are protected from heavy traffic. For example, internal neighborhood streets may be arranged in a discontinuous, curvilinear pattern to discourage cut-through traffic. Facilities, such as churches and shopping centers, which provide services beyond the immediate neighborhood, and which periodically generate heavy traffic and parking congestion, should be encouraged to locate at the edge of



**ILLUSTRATION 4-17  
Typical Residential Neighborhood Layout**



## Thoroughfare Implementation

Implementation of the Thoroughfare Plan will require consistent administration by the City, especially within the ETJ area. Design and technical standards should be adopted to ensure that such practices are uniform in terms of required size of right-of-way, access controls along rights-of-way (i.e. joint or shared access to mitigate traffic congestion), and sight and visibility standards. Further, recommended actions in the administration of the Thoroughfare Plan have been considered in the context of the following.

### FUNDING MECHANISMS

In establishing its thoroughfare system, the City of Lufkin has relied upon three sources of funding: (1) the construction of facilities solely funded by the City (principally through bonds); (2) joint participation with other jurisdictions (i.e., the County and/or the State); and (3) developer participation. Consideration of impact fees, coordination of the City's capital improvements, and continued use of bond referendums are related methods of providing funding for improving the thoroughfare system.

## State Law Pertaining to Impact Fees

Chapter 395 of the Texas Local Government Code addresses the issue of developer participation in the construction of off-site roadways. This state law allows cities in Texas to decide whether to assess fees for roadway construction to new residential and nonresidential development. ***The City should investigate the feasibility of using Chapter 395 as a funding mechanism for roadway construction as Lufkin continues to expand and develop.***

Impact fees can be described as fees charged to new development based on that development's impact on the infrastructure system. The primary advantage to having this funding source is that it provides cities with the increased ability to plan and construct capital facilities so that the needed roadway system capacity is available when the market warrants. If they are not implemented, new capital facilities will likely be financed through taxes (e.g., ad valorem), which are paid by existing as well as future residents. Water and wastewater facilities are often financed through water rates. With impact fees, the development community is responsible for paying its related share of the cost of growth.



However, while impact fees provide financing help for cities, they also increase the cost of development. As most costs associated with development are “passed through” to the consumer, it can be argued that impact fees increase the cost of housing or deter economic development. It must also be noted that if the facilities (and the related capacity) are not available, growth would likely not occur anyway, and therefore, impact fees would not be charged.

### **Coordination of Capital Improvements**

As applicable, coordination with TxDOT and/or Angelina County for the joint planning and cost-sharing on projects is recommended. Where the City assumes sole responsibility for the construction and financing of transportation needs, ***a long-term (20-30 year) plan for the incremental construction and financing of projects is recommended*** in addition to the 5-year CIP program the City currently has.

### **Bond Referendums**

Citizens of Lufkin voted for street improvements to be made through a street bond election held in May of 2001. ***The City has successfully used and retired bonds for roadway construction, improvement, and maintenance in the past, and should***

***continue to do so in the future.*** It should be noted that if the City chooses to adopt an impact fee ordinance, and bonds have been included in the assessment of impact fees, the City can use funds derived from impact fees to retire the bonds. Cities across Texas have used this process as a funding mechanism.

### **SUBDIVISION CONTROL**

The subdivision of land into building sites represents the first step in the development of land uses, and therefore, the creation of potential traffic. Rights-of-way must be acquired at the time of subdivision platting to guarantee the provision of adequate thoroughfares and the value, stability, and character of the area in development ***Specifically, as individual plats are approved, right-of-way must be dedicated in conjunction with the recommendations as generally set forth in the Thoroughfare Plan.*** Especially important is the planning and reservation of rights-of-way in the ETJ as specific roadways are planned and aligned.

### **ZONING AND LAND USE CONTROL**

***All zoning and land use changes should be made within the context of existing roadways as well as planned thoroughfares*** (i.e., those described within the Thoroughfare Plan). The City must ensure that rights-of-way for thoroughfares are preserved or



constructed in accordance with the proposed land uses (refer to the Future Land Use Plan).

## **Thoroughfare Planning Policies**

Standards and criteria for consistent design practices in new roadway development and redevelopment are based upon transportation-related planning studies and an analysis of existing conditions. Proposed changes and recommendations for future thoroughfares are predicated upon the goals and objectives formulated during the comprehensive planning process. Thoroughfare Plan recommendations intended to provide policies to guide Lufkin's transportation planning are as follows within **Table 4-3**.



**Table 4-3  
SPECIFIC THOROUGHFARE PLAN RECOMMENDATIONS**

<b>Recommendations</b>	<b>Target Time Period</b>
1.) The City should minimize access to and from adjacent property along major arterials by limiting the number and locations of curb cuts and by requiring the use of shared entrances to nonresidential facilities.	On-Going
2.) The City should encourage neighborhood development between arterials and collector streets so that traffic may be diverted from residential areas.	On-Going
3.) The City should incorporate the following right-of-way standards into the Subdivision Ordinance: <ul style="list-style-type: none"> <li>• Principal arterial (Illustration 4-6) - 110 to 120 feet,</li> <li>• Minor arterial (Illustration 4-8) - 85 feet,</li> <li>• Major collector (Illustration 4-9) - 60 feet,</li> <li>• Minor collector (Illustration 4-10) - between 50 and 60 feet,</li> <li>• Local street (Illustration 4-12) - 50 feet,</li> <li>• Rural street (Illustration 4-13) - 60 feet (no curb-and-gutter).</li> </ul>	2002 (Immediate)
4.) The City should strive to maintain a level of service “C” for local roadways.	On-Going
5.) The City should ensure that adequate right-of-way for the arterial and collector roadways recommended within this Thoroughfare Plan are preserved through the Subdivision Ordinance as the City develops. As individual plats are approved, right-of-way must be dedicated in conjunction with the recommendations as generally set forth in this Thoroughfare Plan.	On-Going
6.) The City should use the Transit Center to link Downtown Lufkin to other areas of interest throughout Lufkin and to create increased opportunity for local residents to use a mass transit system.	2003-2004 (As Soon As Possible)
7.) Where the City assumes sole responsibility for the construction and financing of transportation needs, a long-term (20-30 year) plan (i.e., budgeting, prioritization, and scheduling) for the incremental construction and financing of projects is recommended.	On-Going
8.) The City has successfully used and retired bonds for roadway construction, improvement, and maintenance in the past, and should continue to do so in the future.	On-Going

(REVISED MARCH 16, 2004)

