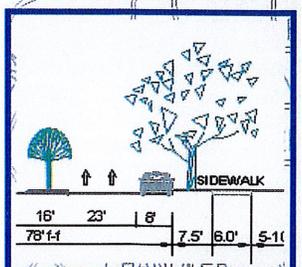
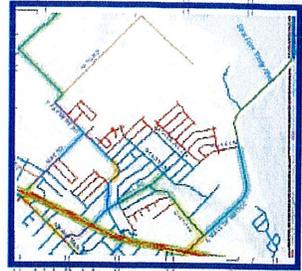


Seagoville

Thoroughfare Plan Update



City of Seagoville, Texas
August 2006



PARSONS



City of Seagoville 2006 Master Thoroughfare Plan

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SECTION 1: Introduction to the Thoroughfare Plan

INTRODUCTION

The thoroughfare system forms one of the most visible and permanent elements of a community. It establishes the framework for community growth and development and is a long-range statement of public policy. Once the alignment and right-of-way of major transportation facilities are established and adjacent property developed, it is difficult to facilitate system changes without significant financial impacts.

Rooted in the 2002 Comprehensive Plan and in previous planning efforts, the Thoroughfare Plan is an overall guide that should be used by the community to achieve an integrated, unified, and safe transportation system. The Plan's primary purpose is to provide for; the safe and efficient movement of goods and services, logical community development, design characteristics for roadways, coordinated public infrastructure improvements, and coordination of roadways with adjacent communities and agencies.

Several key principles were recognized in the preparation of Plan recommendations and should continue to serve the city in future transportation-related decisions:

- The community should have convenient internal circulation between neighborhoods, core community assets and special districts.
- Through traffic should be minimized to specific facilities designed to accommodate non-local and regional traffic. Transportation facilities should define rather than split residential areas in order to preserve neighborhood integrity.
- The plan should monitor regional growth implications in order to proactively address mobility issues to and from Seagoville.
- A safe pedestrian system should provide interconnectivity between homes, community facilities and retail areas.
- The plan is one element of a coordinated transportation system to address long-term inter-modal and multi-modal transportation needs of the city. Smart growth initiatives aimed at reducing travel trends should be considered.

The Plan is aimed at addressing the dynamic and changing needs that have occurred in Seagoville since 2002 and takes into consideration the regional implications occurring as a result of growth in southern Dallas and northwestern Kaufman Counties. The South Outer Loop (Loop 9), traversing along the eastern and southern borders of the city, will have significant implications ranging from right-of-way needs, forecasted regional traffic volume, multi-modal connectivity and facility access within Seagoville. Limited access requirements will require consideration of higher carrying capacity roadways crossing Loop 9, which in turn, could affect land use considerations and adjacent area accessibility. Likewise, large scale residential development of over 8,000 single-family dwelling units in the Seagoville and Crandall extra-territorial jurisdiction (ETJ), will place potential travel demand burdens to an already heavily traveled US 175 corridor.

SYSTEM DEVELOPMENT

Function of Thoroughfare Planning

A carefully planned network of streets can help maintain adequate circulation without sacrificing the community's development potential. The network should include a hierarchy of streets, with each type of roadway designed to serve an appropriate function. Standards for each type of street must take into consideration the volume and speed of traffic, roadway continuity, intersection spacing, roadway access and potential impacts of roadways and traffic upon existing residential neighborhoods, with the factors that affect the community as a whole -- the health, safety, welfare and convenience of the public (i.e., the residents of Seagoville).

The Thoroughfare Plan defines a hierarchy of roadway functions that provide for both traffic movement and property access. The Plan also provides a clear statement of future roadway alignments, capacities (number of lanes), and right-of-way requirements within the City of Seagoville. It has been developed to support the future land-use plan as identified in the Seagoville Comprehensive Plan by providing adequate capacity to move both people and goods

Five elements form the framework of an effective Thoroughfare Plan:

- A long-range Plan that addresses projected growth.
- A process to review the traffic impacts of new developments.
- Implementation of access management criteria.
- Coordination with regional and state (North Central Texas Council of Governments, TxDOT, Dallas County, Kaufman County) planning programs.
- A process for updating/revising the Plan as conditions warrants.

Thoroughfare Plan and Growth

The Thoroughfare Plan is the basic element for ensuring the orderly implementation of roadways in conjunction with economic growth, and facilitates the preservation of right-of-way in the development review process. The Plan provides guidance for determining appropriate land uses by identifying the ultimate configuration of the network. It also provides a guide for the programming of projects and allows for a rational and systematic provision of capacity. The Plan should reflect community goals; provide continuous routes; match expected land-use patterns and characteristics; integrate with the regional highways and arterial roadways, as well as the plans of surrounding local jurisdictions; be sensitive to topographical features and constraints; and adapt to changing conditions.

Traffic Impact Analysis Process

In order to ensure that proposed land uses are compatible with the proposed roadway system and to help modify that system when necessary, a process of analyzing traffic impacts in conjunction with development proposals is recommended. This process should be conducted to ensure that adequate access is available for all proposed developments; that sufficient roadway capacity exists to accommodate them; that the developments are compatible with the characteristics of adjacent roadways; and that improvement or modifications necessary to maintain mobility within the community are identified. These analyses should be conducted new developments generating over

100 peak hour trips within the city proper and ETJ.

To ensure that negative traffic impacts are not placed on the city thoroughfare system from large scale developments outside the city/ETJ, coordination with adjacent communities is recommended to ensure developments of regional impact do not adversely affect Seagoville.

Access Management

Managing access to arterial streets protects the public investment in roadways and ensures that the desire for access to private property is balanced with the mobility needs of the larger community. Safe and convenient access is in the interest of both the public traveling on a street and the needs of adjacent land uses. A system of roadway access management can promote both of these interests.

Key objectives of access management include the limitation of the number of driveways; the encouragement of shared access drives between businesses, and a common circulation system within a cluster of business establishments; and the incorporation of design features (such as left- and right-turn lanes and medians) which facilitate traffic flow.

A well-developed access management program can contribute to the achievement of land use planning objectives by encouraging compatible land uses and orderly layouts. It can also promote aesthetics by encouraging longer, landscaped medians, and by distancing parking lot access from major intersections. Table 1.1 lists commonly used access management considerations.

While most land development decisions are made at the local level, the authority for access management is embodied in various levels of government, which requires inter-jurisdictional coordination in order to reach optimal access management efficiency.

Plan Update

The Thoroughfare Plan should be reviewed on a regular basis and updated to respond to changes in local conditions. As new information about prospective developments is obtained, the Plan should be refined, as necessary, to maintain a balance between public mobility and neighborhood integrity throughout the community.

Finally, review and comment by government decision makers, civic and neighborhood interest groups, and the citizenry in general is one of the most important steps in the planning process. No planning can be successfully implemented without the input from, and support of, these groups and individuals, as they will ultimately determine the balance between maintaining mobility and neighborhood integrity.

Table 1.1 - Types of Access Management Considerations

Driveway Access Principles	<ul style="list-style-type: none"> - Property Access - Number of access points - Number of ingress lanes - Number of egress lanes - One way access - Joint and cross access
Driveway Placement	<ul style="list-style-type: none"> - Driveway location - Driveway spacing - Corner clearance - Property clearance
Driveway Design	<ul style="list-style-type: none"> - Driveway grades - Width and curb return radius - Driveway angle
Channelization Islands and Median Dividers	<ul style="list-style-type: none"> - Turning roadway width - Island size - Throat length
Deceleration Lanes	<ul style="list-style-type: none"> - Right-turn deceleration lanes - Right-turn lane length
Median Openings	<ul style="list-style-type: none"> - Median opening spacing - Median opening length - Median end treatment - Median left-turn lane width - Left turn storage requirements

Thoroughfare Planning Process

Several elements must be considered in the process of developing a Thoroughfare Plan, including the future land-use plan, travel demands, movement and access requirements, and physical constraints to roadway construction. The type of land uses that are existing and planned for an area affect the roadway capacity and access needs for that area. For example, a densely developed commercial or office area with higher travel demand will require more closely spaced roadways with greater capacity than will a low density residential area. Moreover, special efforts will be required in the thoroughfare planning process to ensure that the integrity of residential neighborhoods is protected from unwanted and undesired vehicular traffic.

Balancing the movement and access functions of the thoroughfare system is another consideration in the planning process. Roadways serve two competing functions: the movement of traffic and access to properties. A conflict exists as ingress and egress maneuvers from local properties impede the movement of traffic on major roadways, and as high traffic volumes impede turning movements in and out of driveways. Controlling access so that these two competing functions occur on separate sections of the thoroughfare plan is a primary objective of the process.

Finally, review and comment by government decision makers, civic and neighborhood interest groups, and the citizenry in general is one of the most important steps in the planning process. No planning can be successfully implemented without the input from, and support of, these groups and individuals, as they will ultimately determine the balance between maintaining mobility and neighborhood integrity.

One of the key analytical tools used in the preparation of most Thoroughfare Plans is a travel demand forecasting model. Currently, long range travel projections for the Metroplex are prepared

by the North Central Texas Council of Governments (NCTCOG). To facilitate plan development for Seagoville, traffic forecast model output from the South Outer Loop Study (Loop 9) was used as a basis for determine long-term travel needs. The basis for travel model forecasting is demographic data of population and employment. Socio-demogrpahics from the Loop 9 model was evaluated relative to land use assumptions from the Future Land Use Plan of the Seagoville Comprehensive Plan. Any major disparities between data sets were supplemented with trip generation calculations by traffic survey zone level.

This planning document is structured in the following format:

- A discussion of planning concepts
- A definition of goals, objectives and implementation strategies
- A discussion of existing conditions and travel trends
- The presentation of the Thoroughfare Plan
- The identification of general design standards
- Plan recomentations

SECTION 2: Goals and Objectives

INTRODUCTION

The Goals and Objectives section of the Plan reflects the ideology and principles that Seagoville desires of its transportation system. Goals are philosophical in nature and serve as a guide to the shared vision of long-term community growth. The objectives discussed in this section are action oriented and are intended to form the framework for specific polices for achieving the stated goals.

The 2002 Comprehensive Plan process identified infrastructure (roadways, water, and wastewater) as being a critical issue facing Seagoville. Comments relative to roadways included:

- the need to improve corridors,
- the need to widen streets,
- the need to address traffic on existing thoroughfares.

That public process served as the basis for defining specific goals and objectives concerning thoroughfares. The goals and objectives presented herein are adapted from 2002 Comprehensive Plan effort but have been reorganized and amended to fall into the following general categories:

- Safe and continuous travel
- Alternative transportation strategies
- Enhancement through urban design

Transportation and the Thoroughfare Network

Safe and Continuous Travel

GOAL 1: Provide a transportation system that will effectively an economically serve existing and projected travel needs of the community in a safe and efficient manner.

Objectives:

- 1.1 Establish a hierarchy of thoroughfare classifications that will provide for safe and convenient flow of traffic throughout the community. Develop a thoroughfare plan to ensure efficient and desirable connections between major arterials and other thoroughfares.

- 1.2 Identify roadway design standards in conformance with a functional street system classification.
- 1.3 Identify current areas where access and mobility deficiencies exist. Upgrade and improve existing infrastructure to enhance system carrying capacity, reduce congestion and minimize accidents.
- 1.4 Ensure a balanced relationship between land use development and the transportation system.
- 1.5 Investigate ways in which public and private funding can participate in transportation system improvements.

GOAL 2: Provide continuity of traffic flow within and between neighborhoods and throughout the community.

Objectives:

- 2.1 Ensure that the Seagoville thoroughfare and circulation system provides for the connectivity to regional circulation systems.
- 2.2 The transportation system should offer efficient accessibility to all residential neighborhoods and minimizes negative impacts of regional or cut through traffic.
- 2.3 Design and place traffic control devices so as to maximize efficient traffic flow and minimize the impedance of traffic flow.
- 2.4 Preserve existing rights-of-way, and facilitate connections between adjacent subdivisions.
- 2.5 Maximize network continuity to provide for the free flow of people, goods and services, and to ensure minimum response time for emergency vehicles.

GOAL 3: Monitor regional transportation system planning efforts to ensure a proactive community response to issues affecting the city.

Objectives:

- 3.1 Coordinate with the Texas Department of Transportation (TXDOT) on the proposed alignment of Loop 9, and carefully consider potential land use impact in relation to this alignment.
- 3.2 Coordinate with the North Central Texas Council of Governments (NCTCOG), as the regional MPO, for funding assistance of projects to enhance transportation system improvements within the city and ETJ.

GOAL 4: Upgrade and improve existing street infrastructure to enhance system carrying capacity, reduce congestion and minimize accidents.

Objectives:

- 4.1 Maintain a continuous, coordinated transportation planning process that addresses long-term needs while emphasizing short-term problem solving.
- 4.2 The thoroughfare network should adequately accommodate and encourage though traffic on the arterial system, leaving local trips on the collector system.

GOAL 5: Upgrade and improve existing street infrastructure to meet or exceed minimum standards by Year 2025.

Objectives:

- 5.1 Identify and define minimum design and construction standards to be met by Year 2025.
- 5.2 Establish implementation priorities for all street improvements.
- 5.3 Identify funding alternatives and resources available for implementation.

Alternative Transportation System

GOAL 6: To optimize mobility and decrease dependency upon the automobile by encouraging transportation alternatives.

Objectives:

- 6.1 Encourage multi-modal transportation options, specifically hike-and-bike trails, by designating areas for their development consistent with the *Park & Open Space Master Plan*.

- 6.2 Promote land use patterns and mixed-use land development that reduce the number and length of auto trips and supports walking and bicycling.
- 6.3 Provide a safe and effective means to accommodate pedestrian traffic and prioritize sidewalk improvement areas based upon type of street and adjacent land use. Develop a system of hike/bike trails within the city as growth occurs.
- 6.4 Provide a means of safe pedestrian crossing of major thoroughfares and other streets with high traffic volumes.
- 6.5 Consider if transit options could be used to connect Seagoville with development centers and other communities.

Enhancement through Urban Design

GOAL 7: Promote a more livable city and high quality of life through incorporation of good urban design practices to transportation corridors and through a proactive approach to the City's appearance.

Objectives:

- 7.1 Consider development of streetscape/urban design standards to enhance the City's visual/aesthetic appeal (e.g., design guidelines for consistent streetscape, landscaping, signage, entryway treatments, etc.) of roadways within Seagoville.
- 7.2 Create visual "gateways" at principal entry points to establish a design "theme" or other visual for Seagoville.
- 7.3 Incorporate the natural and built environment into the design process of the transportation system.
- 7.4 Consider development of a plan to enhance the image and identity of the City's historic downtown. Develop downtown as a "pedestrian-friendly," inviting area that returns as the City's social and governmental center.
- 7.5 Encourage public/private participation and cooperation in beautification efforts. Explore utilizing assistance that may be available from private/volunteer groups to perform urban design related projects and to

help maintain enhanced public areas (e.g., street medians, small landscaped areas, etc.).

- 7.6 Use the development review process to evaluate private projects and their contributions to urban design initiatives or their compliance with adopted studies/guidelines.

SECTION 3: EXISTING CONDITIONS

INTRODUCTION

An evaluation of Seagoville's existing transportation system was performed to serve as a basis in the development of the Thoroughfare Plan. Three topic areas are addressed in this analysis and include; the existing roadway framework, work travel characteristics, and factors affecting growth and future travel demand. Physical conditions of the roadway system and travel patterns were identified from field reconnaissance and available information obtained from the City, TxDOT, and the North Central Texas Council of Governments (NCTCOG).

EXISTING TRANSPORTATION FRAMEWORK

General Roadway Layout

Seagoville's roadway network consists of two distinct features found in most Texas communities; a classic grid network in the old town area and a curvilinear network serving newer suburban development. What began as a compact community centered on rail station development (SP Railroad), expanded with the use of the automobile to outlying parts of the area. Access to the downtown was originally facilitated via (today's) Kaufman, Combine and Malloy Bridge Roads. Growth then extended along Kaufman/Seagoville, Combine, Railroad and Farmers Roads. Anchored today by US 175, community development extends off of Seagoville, Hall, Malloy Bridge, Simonds, Stark, May, and to a limited extent Kleburg, Ard and Bowers Roads.

Access to and from Seagoville is primarily facilitated via US 175. While a bulk of east-west travel is handled on US 175, Malloy Bridge and Seagoville Road serve to provide circulation and secondary access to the city as well as other regional roadway facilities (IH-20 and IH-45). Other critical linkages to/from the city include Simonds, Kaufman, and to a limited extent, FM 1389. Figure 3-1 illustrates the general roadway layout of Seagoville relative to the regional area.

Internal to the city, existing development is primarily served via Kaufman, Seagoville, Hall, Farmers, Combine and Stark Roads. Other roadways providing access and circulation to areas of the city include:



Figure 3-1: Regional Context

- Northern area: Stark, E. Simonds, Lasater
- Eastern area: Hall, May, Crestview
- Southern area: W. Farmers, Bowers
- Western area: Kleburg, Woody, Glenn

Physical Characteristics

Roadways within Seagoville, are for the most part, two-lane undivided roadways. The exception is US 175 (four-lane controlled access freeway with frontage roads), Seagoville (four-lane divided), West Malloy Bridge (four-lane divided), and Kaufman (four-lane undivided). Figure 3-2 illustrates the existing roadway configuration and limits of lane configurations.

Traffic control at roadway intersections is facilitated via signings and markings consistent with requirements of the Manual of Uniform Traffic Control Devices (MUTCD). With the exception of three locations, all intersections within the city are STOP controlled. Traffic signals operate the intersections of Hall and Malloy Bridge with US 175 (TxDOT operated), and South Kaufman at FM 1389 is YIELD controlled. Figure 3-2 illustrates traffic control along major roadways in Seagoville.

Several roadways follow alignments stemming from former property boundaries (typically termed prescriptive rights roadways) that wind continuously until reaching an intersecting street. These roads typically contain sharp 90-degree turns, small curve radii with little or minimal advance signage for notice. Field reconnaissance revealed several of these roadways (Bowers, East Simonds, Farmers and Alto) are in need of updated signing and/or pavement markings to give sufficient advance notice to motorists of sudden turns.

Traffic Volumes

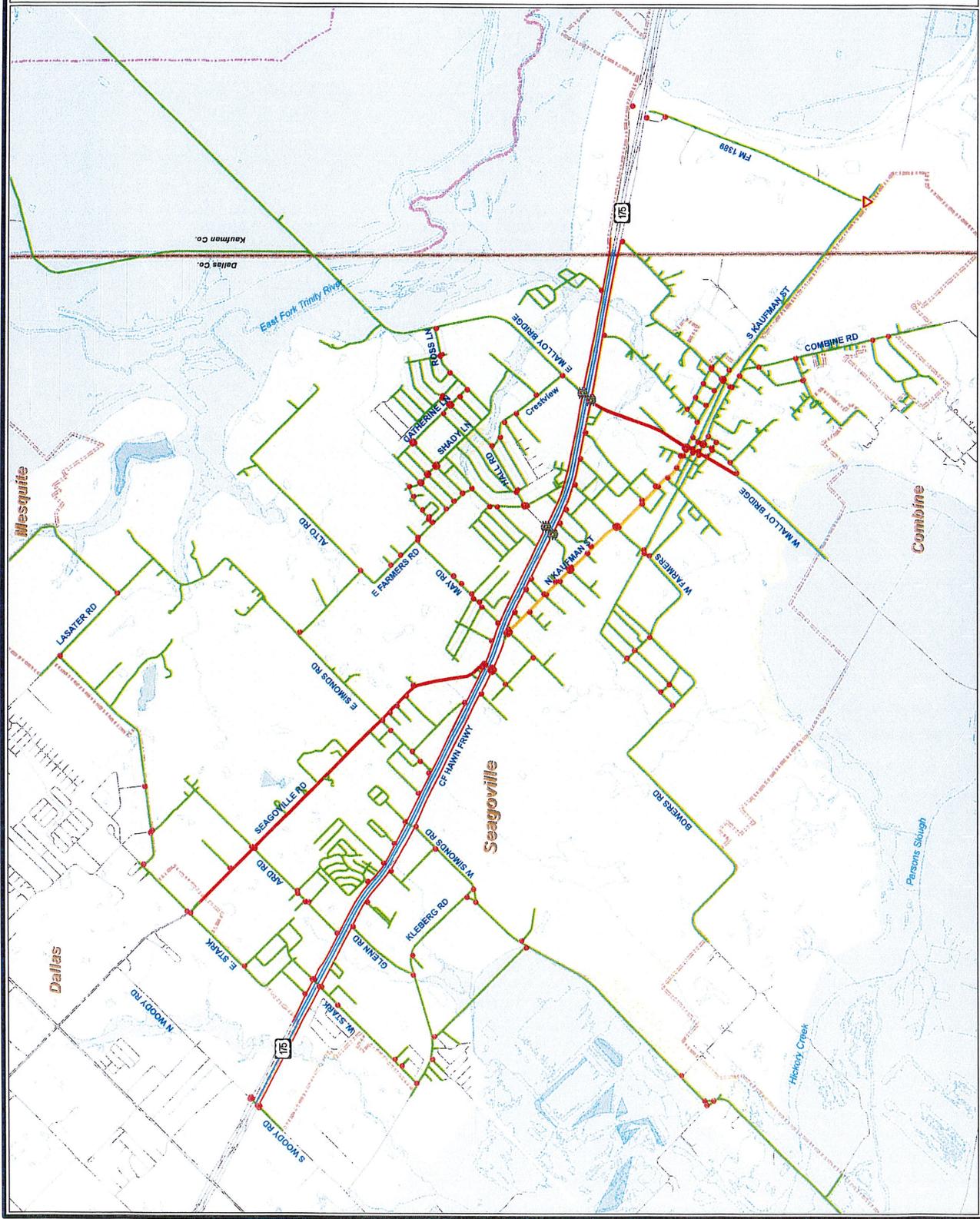
Traffic volumes identify existing travel patterns and assist in determining the transportation systems ability to serve area travel demands. Existing daily traffic volumes for major and select roadways are shown in Figure 3-3. With the exception of US 175, daily traffic volumes throughout the city are relatively low. US 175 experiences average to heavy volume load in the western portion of the city. Daily volumes in the east and western edges of the city range from 35,300 to 61,500 vehicles, respectively. As evident, the regional attraction towards Dallas places a heavier volume burden on the western portion of the corridor. In terms of growth, traffic volumes have increased between 2-6% annually (11-29% over the same time period) since 1999. Data reveals the eastern portion of the corridor to be experiencing a higher annual growth rate and is indicative of recent commercial activity at Malloy Bridge Road.

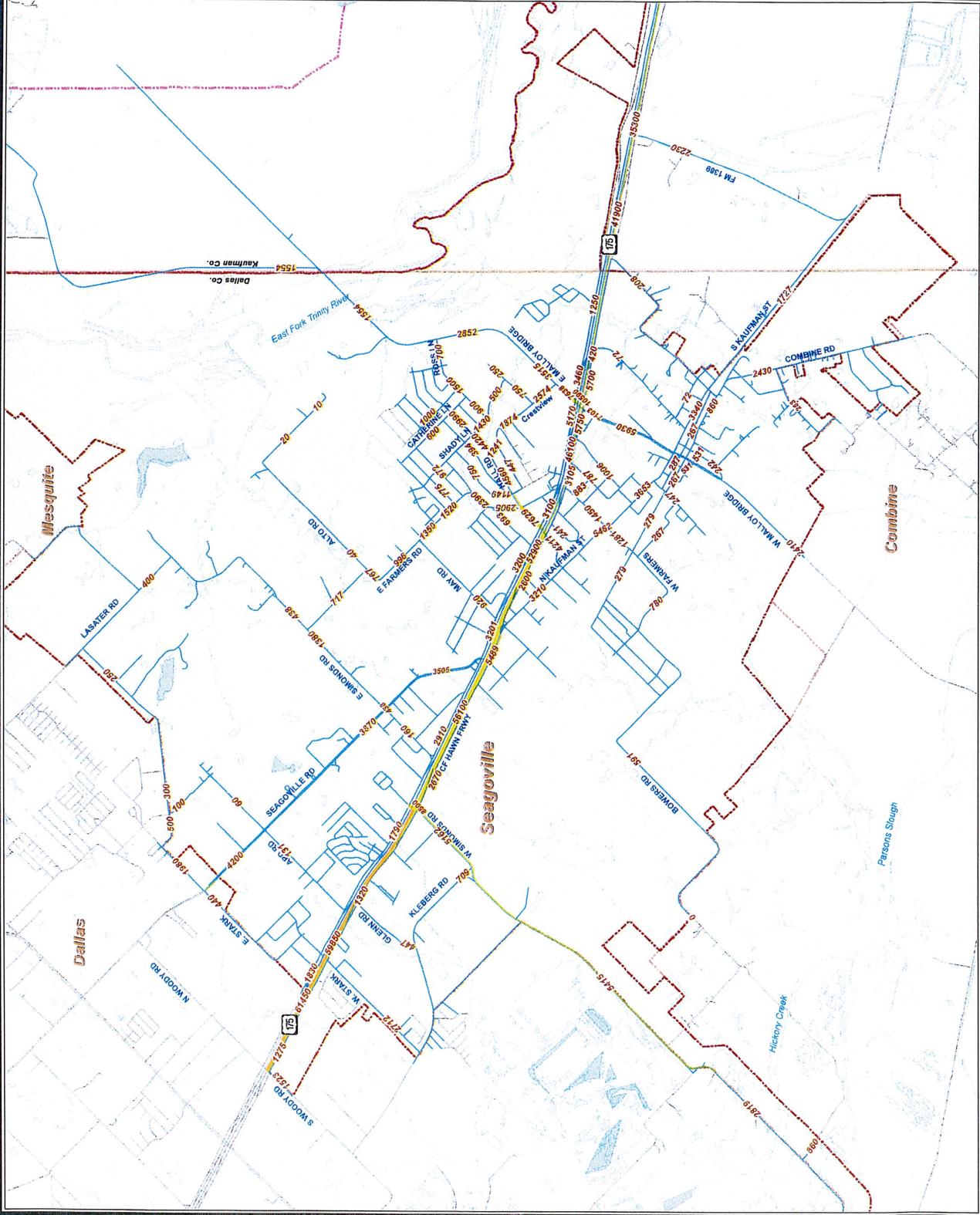
Traffic volume as a result of commercial development on Malloy Bridge Road is evident by the spike in volume between Crestview and US 175. East of Crestview, Malloy Bridge carries a volume of 2,190 that reduces to about 1,550 east of Ross Lane. West of Crestview, volume increases from 3,515 to 10,300 at US 175. An excessive number of driveways within this segment of road create operational problems (vehicular queues

- Legend**
- County Limits
 - City Limits
 - ETJ
 - FEIMA Floodplain
 - 100-Year Floodplain
 - 500-Year Floodplain
- Traffic Control**
- STOP
 - Traffic Signal
 - YIELD
- Number of Lanes**
- 4-lane Freeway
 - 4-lane Divided
 - 4-lane Undivided
 - 2-lane Undivided
 - 2-lane Frontage Road



Figure 3-2
 Existing Roadway Configuration
 and Traffic Control





- Legend**
- City Limits
 - ETJ
 - County Limits
- Operational Level of Service**
- 0.00 - 0.45 LOS A
 - 0.46 - 0.65 LOS B
 - 0.66 - 0.80 LOS C
 - 0.81 - 1.00 LOS D/E
 - > 1.0 LOS F

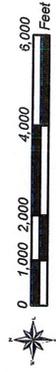


Figure 3-3
 2005 Traffic Volumes
 and Level of Service

extend along Malloy Bridge that prevents adjacent commercial site access) during peak hour conditions.

A link level capacity analysis of roadways was conducted for the purpose of determining operational characteristics of roadways in the city system. This volume-to-capacity determination will identify system deficiencies and assist in the determination of thoroughfare improvements needed to improve network operations. Capacity analysis is measured in terms of level-of-service (LOS) and reflects a relationship between the design capacity of the roadway and the traffic demand upon a particular segment. LOS is defined in terms of delay with six categories ranging from "A" through "F", with "A" as a free-flow condition and "F" severe congestion and stop-and-go conditions. LOS "D" is typically the threshold most cities deem as acceptable. It is important to note that while a roadway segment may operate acceptably, adjoining intersections may experience poor conditions due a high number of turn movements, unavailability of turn lanes, and type or timing of traffic control.

Virtually all of the roadways were determined to be operating at level of service (LOS) "C" or better at this time, with the majority at LOS "A" or "B". The most congested segments within the study area was calculated to be US 175 between Simonds and the western city limits, which operates at LOS "D/E". Figure 3-3 details roadway operational conditions.

Right-of-Way

Right-of-way widths vary throughout the city and are dependent upon the time of original roadway construction. Generally, the older portions of the city contain narrower rights-of-way than newer areas because of changes in development standards over time. For example, North Kaufman Street expands and reduces from 40-70 feet between Elm and Bee Streets. Between Bee and Malloy Bridge, right-of-way is 92 feet. By contrast, South Kaufman varies between 60-50 feet from Malloy Bridge east to the city limits.

Not including US 175, rights-of-way range from 35-120 feet (US 175 ranges from 300-350 feet) throughout the city. In the older sections of the city, widths vary from 35-60, whereas newer roadways have widths ranging from 50-110 feet. The upper end of this range is associated with newer roadways such as Seagoville and Malloy Bridge Roads. Generalized rights-of-way for major roadways are depicted in Figure 3-4.

Pavement Type and Surface Conditions

A majority of roads (66%) in Seagoville are either constructed or have an overlay of asphalt. Concrete roads comprise 30% and the remaining 4% are of gravel or are unimproved. Most recent residential development within the city has roads built with concrete. US 175 is also constructed of concrete, however, portions of the frontage roads have been overlaid with asphalt. Figure 3-4 illustrates roadway pavement types.

A comprehensive evaluation of pavement conditions was conducted of all streets in 2004 by City Staff for the purpose of developing a maintenance program for capital

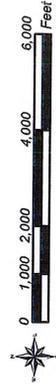
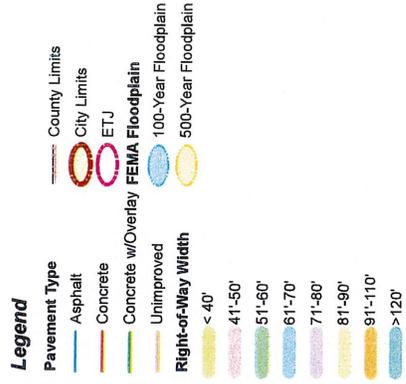
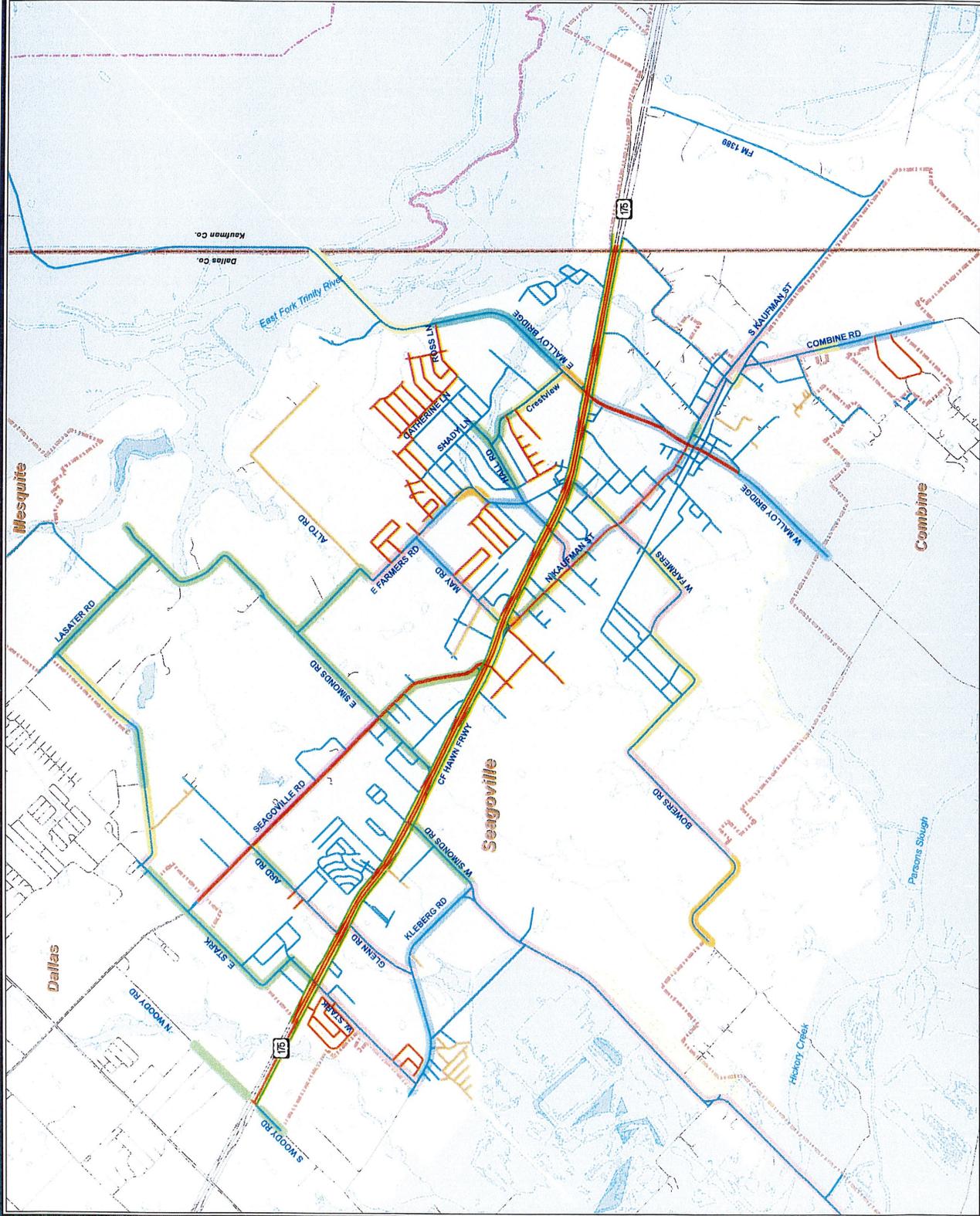


Figure 3-4
 Existing Rights-of-Way
 and Pavement Type



improvements. All but US 175 was evaluated for this effort. Roadways were rated according to the following descriptions:

<u>Condition</u>	<u>Description</u>
A – Good	Good riding surface; no noticeable wear or obvious defect.
B – Acceptable	Good riding surface; has some minor surface defects and wear indications. Some good cut or patch repairs may exist.
C – Fair	Slightly rough riding surface; edges beginning to break down some gutter/street misalignments; small areas of spalling. Cracks and cut repairs beginning to require attention.
D – Poor	Uncomfortable and/or badly worn riding surface; extensive spalling, cracks, paving failures, poor patches and/or cut repairs, edge breakdown, and gutter/street misalignment.
E – Unacceptable	Very rough and/or uneven riding surface; drainage problems, large surface areas in bad condition, many unsatisfactory patches and cut repairs.

The inventory revealed about half of the street network (96 of 176 streets) to be in good or acceptable condition. Thirty-five streets were classified as being in fair condition. Several major roadways were amongst these and included; Seagoville, Farmers, May, Ard, Stark, Woody and portions of Hall, S. Kaufman and Combine Roads.

Forty-seven streets were determined to be poor or unacceptable. Several major roadways ranked as poor included; East Simonds, Lasater, Environmental Way and Shady Lane. Of the twelve identified as unacceptable, 8 are composed of gravel. The remaining four unacceptable streets include portions of Ball, Elizabeth, Peck and Ward Streets and require reconstruction of street segments, curb and gutters and/or drainage modifications. Figure 3-5 illustrates the results of the 2004 street surface condition inventory.

Accident Data

Limited data was available for a comprehensive listing of high accident locations within the city, however, City Staff indicates that a significant number of accidents are associated with US 175. Accident data from the Texas Department of Safety (1996-1999) reveals a citywide average of 55 accidents per year. Over a four year period, the number of accidents ranges from a low of 43 to a high of 63 per year.

Recent Street Improvements

Recent street improvements include; the extension of Environmental Way from the O'Reilly distribution facility to Bowers Road, asphalt surface overlays on Hall Road and Crestview Drive, traffic signal improvements at US 175/Malloy Bridge Road, and the addition of several new residential developments along Stark Road and Crestview Drive. Roadways in the new subdivisions are constructed of concrete with curb and gutter drainage.



- Legend**
- Street Surface Condition
 - A - Good
 - B - Acceptable
 - C - Fair
 - D - Poor
 - E - Unacceptable
 - County Limits
 - City Limits
 - ETJ
 - FEEMA Floodplain
 - 100-Year Floodplain
 - 500-Year Floodplain

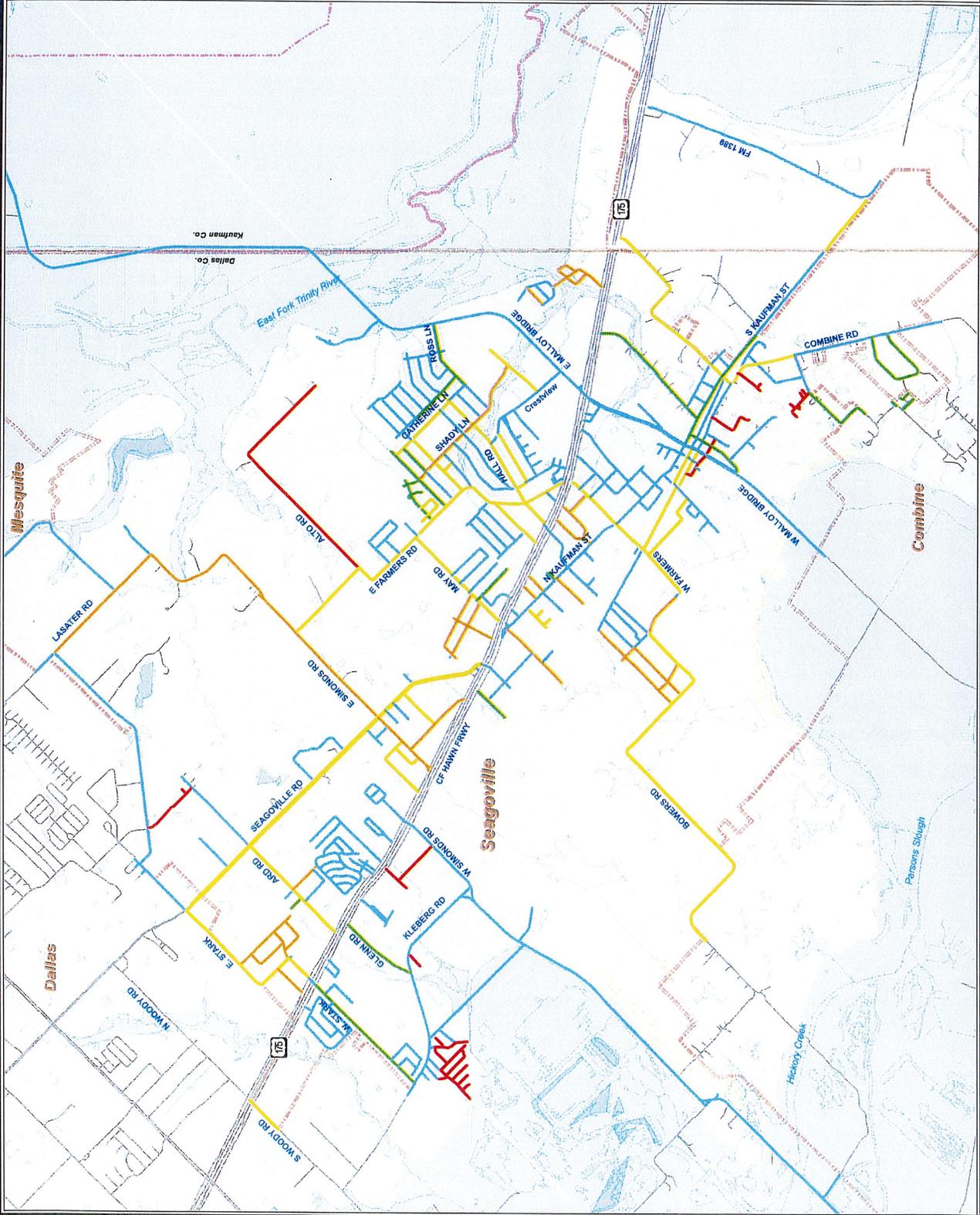


Figure 3-6
Existing Street
Surface Conditions

Other Transportation Components

Rail

With the relocation of the Southern Pacific Railroad in the late 60's/early 70's, freight/rail service no longer exists to the city. Initially part of the Texas Trunk Railroad and then the Texas & New Orleans (circa 1875) Railroad, this line was acquired by the SP RR in 1961. Over time, portions of the rail right-of-way, south from IH-20, have been sold to individual property owners.

Public Transportation

Currently no public transportation system exists in the city other than private operations serving on a demand responsive basis. The DART System Plan currently does not include Seagoville for future services.

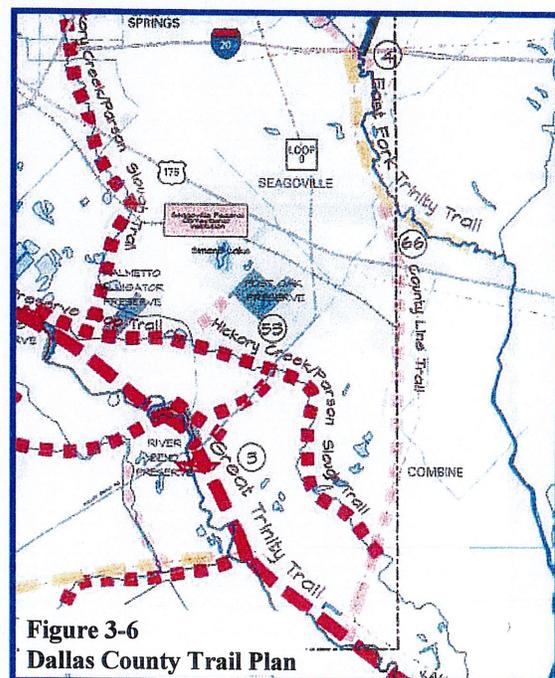
Air Service

Two private airports provide non-commercial service in close proximity to Seagoville. The Seagoville Airport (ID No. 5TA9), in Combine, is located 2.5 nautical miles southeast of the city and contains a gravel surface runway (2,675'). The Mesquite Metro Airport (ID No. HQZ) is located about 6 nautical miles to the north and contains one concrete surface runway (6,000').

Hike & Bike

Hike & Bike trails are a key component of alternative modes of travel aimed at reducing the dependency of the automobile in day-to-day life. Smart Growth initiatives by NCTCOG call for this alternative measure as an effort to promote long-term viability and sustainability of communities. The 2001 Comprehensive Plan calls for the implementation of hike & bike trails as a component of the Master Parks Plan. The former SP Railroad right-of-way would serve as an excellent opportunity for conversion to this alternative mode of travel. As the former rail right-of-way will run through the heart of the Downtown redevelopment area, the former rail right-of-way would serve as an excellent opportunity to link potential employment opportunities of downtown with neighborhood development areas.

Other plans identifying hike & bike trails in the Seagoville area include the 1997 Dallas County Trail Plan and the Greater Dallas Bike Plan. The Dallas County Trail Plan (Figure 3-6) identifies several surface and street route opportunities in and near the city. Major surface routes include the Elm Fork Trinity Trail (Priority 1) linked with the Hickory Creek/Parsons Slough Trails (Priority 1) via a



soft surface trail running along the Dallas/Kaufman County Line. The Hickory Creek/Parsons Slough Trail winds through the Palmetto Alligator Preserve as well as has a surface trail branching to the DISD Environmental Center and the Post oak Preserve. Several street surfaces are shown to run along Malloy Bridge Road and Kaufman/Seagoville Road. Utility corridors are also highlighted in the eastern portion of the City.

The Greater Dallas Bike Plan also has a route (Route 110) near the western part of the city along Kleberg and Edd Road. No Bike or Pedestrian routes near Seagoville are identified in the NCTCOG Bicycle and Pedestrian Plan.

Other Transportation Related Plans and Studies

Thoroughfare planning affecting Seagoville has been addressed in several documents over time. Most recently, the 2002 Comprehensive Plan addressed the need for long-term system expansion relative to growth and development of the city. A Future Land Use Plan served as the basis for thoroughfare needs over a 20-year planning period. Prior to this effort, the 1981 Traffic Engineering Plan served as a guide for traffic and transportation planning.

The Seagoville Industrial Park Plan

The Seagoville Industrial Park: Concept Planning for the City of Opportunity, was prepared by the Seagoville Economic Development Board in 2003. This document identified three roadway concepts addressing access and circulation of future industrial development. Based on roadway configurations, this Plan identified that up to two million square feet of development could potentially be developed within the Industrial Park. Of note was key access considerations to/from US 175 via Old Seagoville Road and Environmental Way, and future Loop 9 via Kleburg/Bowers streets.

Loop 9

The study of Loop 9 was initiated in May 2002 for the evaluation of alternative alignments extending over 40-miles from IH-20 in Mesquite to US 287 in northwest Ellis County. To date, two alignments have been approved by the Study Task Force (September 2004) for detailed evaluation in the draft environmental impact statement (DEIS) process. From a regional perspective, Loop 9 serves as the continuation of the next major circumferential transportation corridor around the metropolitan area. Within Seagoville, two options are being evaluated although the City has indicated a preference toward an alignment extending eastern and southeastern portions of the city. This alignment also coincides as the technically preferred alignment from the Loop 9 study. Figure 3-7 illustrates this alignment relative to the Seagoville area.

The configuration of Loop 9 initially consisted of a parkway facility within a 400 foot right-of-way. The parkway lanes would be situated toward the outside of the right-of-way envelope in order to allow for right-of-way preservation and main-lane facility expansion as travel demand warrants.

The Loop 9 Task Force recently met (May 2006) to consider the incorporation of freight rail and managed truck/auto lanes within the Loop 9 corridor. While freight was determined not to be feasible within the corridor, it was resolved that, in order to maximize funding opportunity to construct the corridor sooner, tolled managed lanes for dedicated truck and automobile would be added to the corridor study. The revised project definition of Loop 9 now consists of: a 350-400 foot right-of-way containing six “free” lanes (frontage road designed and constructed in accordance with TxDOT Access Management Standards), four managed truck lanes, and four managed automobile lanes. Right-of-way requirements at major interchanges and Toll Collection points will be determined after further study and will likely exceed the 400 foot envelope. Access to the corridor, from both the frontage roads and managed lanes, should be limited to arterial connections (frontage road) and interstate/US highways (managed lanes).



Figure 3-7
Loop 9 Relative to Seagoville

The viability of freight rail will continue to be studied by NCTCOG for evaluation of another appropriate location.

The Trans-Texas Corridor

The Trans-Texas Corridor (TTC) is a statewide initiative consisting of a proposed multi-use, statewide network of transportation routes in Texas that will incorporate existing and new highways, railways and utility right-of-ways. To date, specific routes for the TTC have not been determined although two general corridors are identified in the DFW area.

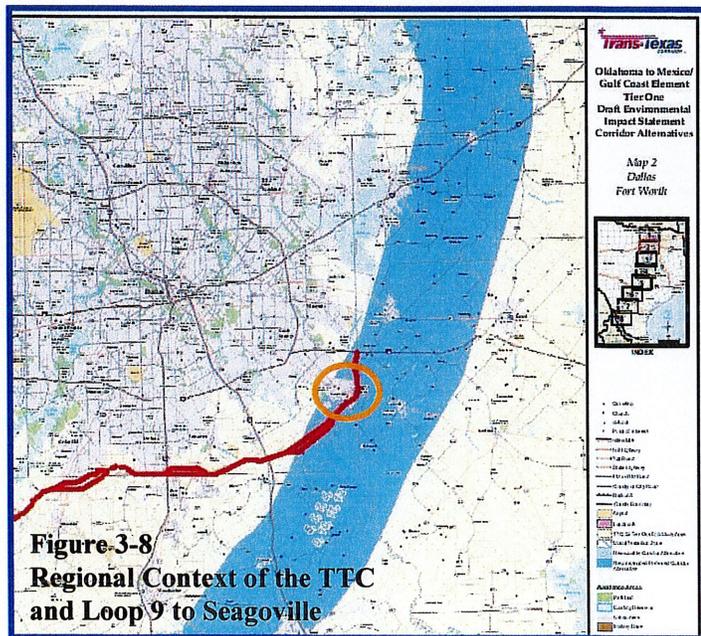


Figure 3-8
Regional Context of the TTC
and Loop 9 to Seagoville

Figure 3-8 illustrates the TTC, relative to Loop 9 and the Seagoville area. As envisioned, the TTC will include; separate lanes for passenger vehicles and

large trucks, freight railways, high-speed commuter railways, infrastructure for utilities including water lines, oil and gas pipelines, and transmission lines for electricity, broadband and other telecommunications services. Plans call for the TTC to be completed in phases over the next 50 years with routes prioritized according to Texas' transportation needs. TxDOT will oversee planning, construction and ongoing maintenance, although private vendors will be responsible for much of the daily operations.

The alignment of the TTC appears to be located east of the Elm Force Trinity River. Potential impacts to Seagoville as a result of the TTC include; partial incorporation with the Loop 9 corridor, connectivity to/from Loop 9 with the TTC in or near the city, and impacts to recent residential development plans.

US 175 Corridor

TXDOT is currently planning main lane and intersection improvements to various sections of US 175. Of significance to Seagoville is the reconstruction of main lanes, expansion of intersections at Hall and Malloy Bridge Road (among others) and conversion of the two-way frontage road between Old Seagoville Road and North Kaufman to one-way access. Table 3-1 lists TXDOT's programmed activities with US 175.

Table 3-1: TXDOT Transportation Improvement Programming

Project	CNV Project No.	Improvement	Comment
IH20 – Belt Line Rd.	197-02-073	Widen 4 to 6 lanes	Letting Sept. 2007
Belt Line – Malloy Bridge	197-02-089	Reconstruct 4 lanes	Letting Sept. 2007
Dallas Co. – FM 148	197-03-059	Installation of jersey barriers	Letting April 06
FM 148 – CR 4106	197-03-054	New 2-lane FR , convert 2 to 1-way FR	Letting June 2008

Forecasted year 2030 daily volumes for US 175 range from 95,000 vehicles at Stark Road to 54,000 vehicles at the eastern city limits. At Seagoville Road and Malloy Bridge Road, volumes are forecasted to be 84,000 and 60,000 vehicles, respectively. Conceptual plans for this corridor include six main-lanes (three lanes in each direction) and 3-lane frontage roads. To enhance the carrying capacity of critical interchanges, Texas U-turns are anticipated to be incorporated as part of the standard design.

Downtown Seagoville

The Downtown Seagoville Plan is a concurring planning effort aimed at revitalizing the historic core of the community. By providing a variety of housing types, supported by retail shops, commercial and office activity, public open space and cultural facilities, this area is envisioned to return as the “center of Seagoville”. A key ingredient is the layout and treatment of streets in order to maximize a pedestrian orientation and small town feel. Narrow streets, with on-street parking, wide tree-lined sidewalks and building setbacks for leisurely gathering is also envisioned to create a cohesive live-work atmosphere. To create a sense of arrival, strong streetscape elements at US 175 and along Malloy Bridge Road will serve as a link to the core of this area. A new city hall is also envisioned as part of this plan.

Table 3-2: Seagoville Forecasted Population and Employment Growth

	2000	2005	2010	2015	2020	2025	2030
Population	9,367	10,304	11,199	12,882	14,340	16,608	19,652
<i>Percent Increase</i>		10%	9%	15%	11%	16%	18%
Employment	4,690	5,320	5,908	6,319	7,104	9,422	12,996
<i>Percent Increase</i>		13%	11%	7%	12%	33%	38%

Source: US Census Bureau; NCTCOG

GROWTH FACTORS AFFECTING THOROUGHFARE PLAN DEVELOPMENT

Factors to be considered in the development of the thoroughfare plan include new growth areas, environmentally sensitive areas, and regional implications.

New growth areas include several residential and commercial area developments located to the north and eastern sectors of the city. To the north, the Camaro 375 tract (2,500 dwelling units), Highland Meadows (513 dwelling units), Hart Meadows (300 dwelling units), available land for residential development (around Simonds Lane), and Falcon's Lair (large scale mixed-use development) in Mesquite.

Several large scale developments will add travel demands from the east including; Hunter's Ridge (1,000 dwelling units), the Centurion development (1,000 dwelling units), and Heartland (8,100 dwelling units northwest of Crandall). East of Malloy Bridge Road, commercial and retail uses will compound travel needs along the US 175 corridor.

To the south, connectivity between the industrial park and US 175 will be critical. Equally critical will be a linkage between the employment of the industrial park and residential activity of Downtown Seagoville and Hunter's Ridge. Also, environmentally sensitive areas, parklands, and floodplain areas will challenge the ability to provide connectivity for east-west travel between Simonds and the future Loop 9 corridor.

The Loop 9 corridor will allow for limited access to the frontage roads at critical points within the City. Access to Loop 9 is currently planned for Simonds Road, Malloy Bridge, US 175, Kaufman Road and Bowers Road. Access to the managed auto/truck lanes is anticipated that access will be more restrictive than that of the frontage roads. While it has not been determined, it is anticipated that access will be facilitated via US 175.

As will be discussed in the Future Thoroughfare Plan section of this document, the existing roadways form the backbone of the future plan. Often times, the roadways on the Plan are widenings, extensions, connections, and "straightening out" of the existing roads. Thus, it is important to perform short-term improvements with these long-term actions in mind.

SECTION 4: THOROUGHFARE PLAN

INTRODUCTION

The recommended plan addresses the implementation of a roadway network capable of handling projected traffic demands over long-term planning period. Several modifications have been made to the Plan adopted as part of the 2002 Comprehensive Plan process that optimizes existing routes, as well as includes changes in alignments and sizing of specific roadways to allow for a more cohesive and efficient thoroughfare system. Also included is the development of alternative roadway cross-sections to address specific planning efforts for the Downtown Seagoville Plan and revitalization effort.

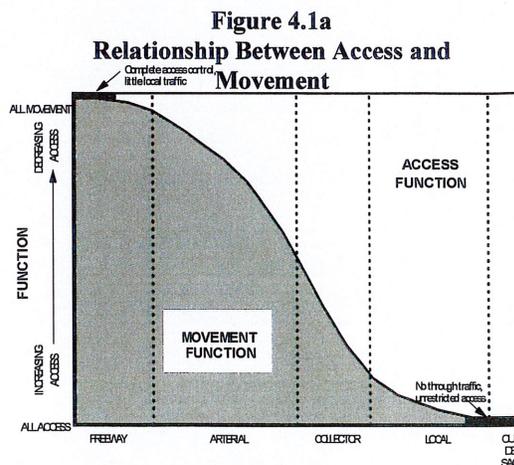
The update of the Thoroughfare Plan involved extensive analysis and study of forecasted conditions for the year 2025/2030, existing and planned development plans, and programming of regional state roadway improvements. The following process was used to define a basis for recommended thoroughfare plan elements:

- A comparison, by traffic survey zone, of demographics of the 2002 Future Land Use Plan and the NCTCOG Year 2025 travel forecast model,
- Development of trip generation and assignment of differences in demographic profiles,
- Review of the Loop9 Year 2030 travel forecast and socio-demographics,
- Review of TXDOT forecasts of traffic volumes of Loop 9 and US 175 and major cross-streets,
- Synthesis of future volume forecasts and roadway needs based on a functional street classification system.

THOROUGHFARE PLAN DEVELOPMENT

Functional Street Classification System

Functional street classification recognizes that streets are part of a system having diverse origins and destinations. A typical trip involves the following stages: primary movement, transition, collection/distribution, access and termination. Functional classifications also describe and reflect a set of characteristics common to all roadways within each class. Functions range from providing mobility for through traffic and major traffic flows, to providing access to specific properties. Characteristics unique to each classification include the degree of continuity, general capacity, and traffic control characteristics. Figure 4.1a illustrates the relative roles of each

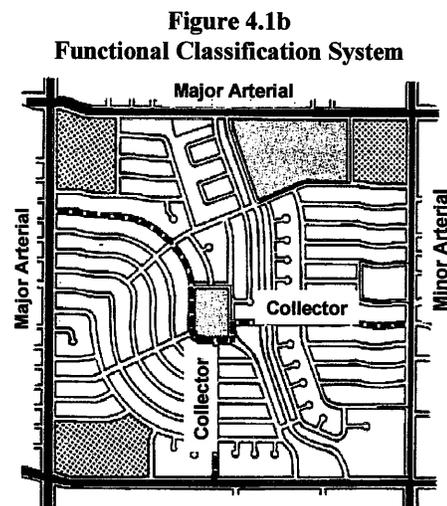


classification to achieve its intended function.

Seagoville's Thoroughfare Plan recognizes four general classes of roadways that are based on a hierarchical function that include: freeways, arterial streets, collector streets and local/residential streets.

- Freeways (and Tollways) are devoted entirely to traffic movement with limited or no direct land service function. Freeways are multi-lane divided roadways with a high degree of access control and grade-separated intersections. Full or partial control of access distinguishes freeways from other classes of roadways. Freeways serve large volumes of high-speed traffic and are primarily intended to serve inter-regional trips.

- Arterial Streets are streets that provide a high degree of mobility, service relatively high traffic volumes, have high operational speeds, and service a significant portion of through travel or cross-town trips. Arterial roadways serve as connections between major traffic generators and land use concentrations. Minor arterials serve as connections between collectors and major arterial streets. Because direct access is a secondary function of arterial streets, access should be carefully managed.



- Collector Streets serve as connections between arterials and local/residential streets and serve to collect and distribute traffic to the arterial network. Collectors also serve to provide direct service to neighborhoods, commercial developments, and other local areas and their design involves site specific considerations. Collectors accommodate smaller volumes of traffic over shorter distances and may border or traverse neighborhood boundaries.
- Local/Residential Streets are streets which are intended to provide direct access to abutting property and to collect/distribute traffic form individual parcels. These streets are intended for short, low volume and slow speed traffic movements.

In short, the functional classification of streets provides for the circulation of traffic in a hierarchy of movement from one classification to the next. Functional classes can be subdivided further into major and minor designations to further detail their role in the community. For each classification, there is typically a recommended set of operational and design criteria.

Table 4.1 describes the most important characteristics of street functional classifications. The arterial and collector classifications have been divided to include major and minor subclasses. These planning guidelines are utilized, particularly in developing areas, to form a basic framework for the thoroughfare system.

Also included in Table 4.1 is information on the typical level-of-service each roadway class is intended to provide. Level-of-service refers to a measure of capacity that a section of roadway or intersection can accommodate during peak traffic conditions. It is defined in terms of delay with six categories ranging from "A" through "F" being assigned to reflect the relationship between the design capacity and the traffic demand upon a particular segment. As demand approaches capacity, the level of service decreases. Level of service "C" is typically recommended for design purposes.

While the above described conditions are ideal, it may not be practical or even possible to modify existing streets in already developed areas to conform to the desired design standards for all the street functional classifications. In cases where neighborhood areas are bisected by major roadways, alternative cross-sections may be applied to assure that neighborhood integrity is preserved while providing traffic access.

Thoroughfare Issues/Concerns

Several issues and concerns were identified throughout the planning process to be addressed as part of the Thoroughfare Plan Update and include:

- Access to/from the Seagoville Industrial Park
- Capacity issues for major street crossings with US 175
- US 175 frontage road at Seagoville Road
- Congestion of Hall Road at US 175
- Roadway standards for the downtown revitalization planning efforts
- Large scale residential developments to the east and ETJ of Seagoville

PROPOSED THOROUGHFARE SYSTEM

The Seagoville Thoroughfare Plan is based on a functional classification system recognizing a hierarchy of streets, continuity of existing routes, connectivity with thoroughfares with adjacent communities, and accessibility with regional transportation facilities. The roadway network is based on six classes of public roadways including: Freeway/Tollway, Major Arterial, Minor Arterial, Major Collector, Minor Collector and Local/Residential streets. Figure 4.2 illustrates the recommended plan for the Seagoville area.

The following describes changes to the Thoroughfare Plan as well as the relationship of the Plan to the issues described above.

Table 4.1 - Roadway Functional Classifications and General Planning Guidelines

Classifications	Function	Continuity	Approx. Spacing (Miles) ¹	Direct Land Access	Minimum Roadway Intersection Spacing	Volume Ranges (veh./day)	Speed Limit (mph)	Typical LOS	Parking	Comments
Freeway/ Tollway	Traffic movement, long distance travel.	Continuous	4-5	None	1 mile	45,000 to 125,000	55 - 70	D-E	Prohibited	Supplements capacity of arterial street system and provides high speed mobility.
Major Arterial	Moderate distance inter-community, intra-metro area, traffic movement. Minor function - land access. Serves long trip lengths.	Continuous	1/2 - 1 1/2 ²	Restricted - some movements may be prohibited; number and spacing of driveways controlled.	1/4 mile	36,000 to 45,000	40 - 55	C-E	Prohibited	Backbone of street system.
Minor Arterial	Mobility function is primary, access function is secondary. Serves moderate trip lengths.	Continuous	1/2 - 1 1/2 ²	May be limited to major generators; number and spacing of driveways controlled.	1/8 mile	20,000 to 34,000	30 - 45	C-E	Prohibited	Provides route and spacing continuity with major arterials.
Major Collector	Primary - collect/distribute traffic between local streets and arterial system. Secondary - land access; inter-neighborhood traffic movement.	Not necessarily continuous	1/4 - 1/2 ²	Safety controls; limited regulation.	300 feet	12,000 to 28,000	30 - 40	B-C	Prohibited	Through traffic should be discouraged.
Minor Collector	Primary - internal to one neighborhood; serves short trip lengths. Secondary - land access.	Not continuous; should not extend across arterials	1/4 - 1/2 ²	Safety controls; limited regulation.	300 feet	1,000 to 15,000	30 - 35	A-B	Limited	Through traffic should be discouraged.
Local	Land access.	None	Two lot lengths	Safety control only.	300 feet	200 to 1,500	20-30	A-B	Permitted	Through traffic should be discouraged.

¹ Spacing determination should also include consideration of travel projections in the area or corridor based on ultimate anticipated development.

² Denser spacing needed for commercial and high-density residential districts.

- A supporting arterial grid providing access to US 175 and Loop 9. As east-west movement is primarily facilitated via US 175, paralleling arterials to support such movement as well as offering an alternative was critical. Without such facilities, all traffic is confined to US 175 or its frontage road. East-west arterials include Kleburg/Bowers, Kaufman/Seagoville, Farmers/Prescott and Lasater Road. As Loop 9 would ultimately provide an efficient means to access IH20 and beyond and IH45 and beyond, a direct connection other Malloy Bridge was needed. The realignment of East Simonds with West Simonds would offer direct accessibility to Loop 9 as well as provide a major roadway to support a potentially high growth in the northern sector of the city.

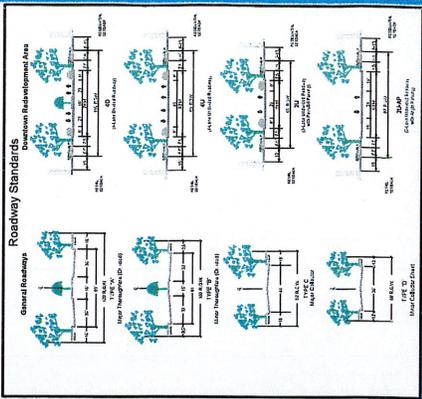
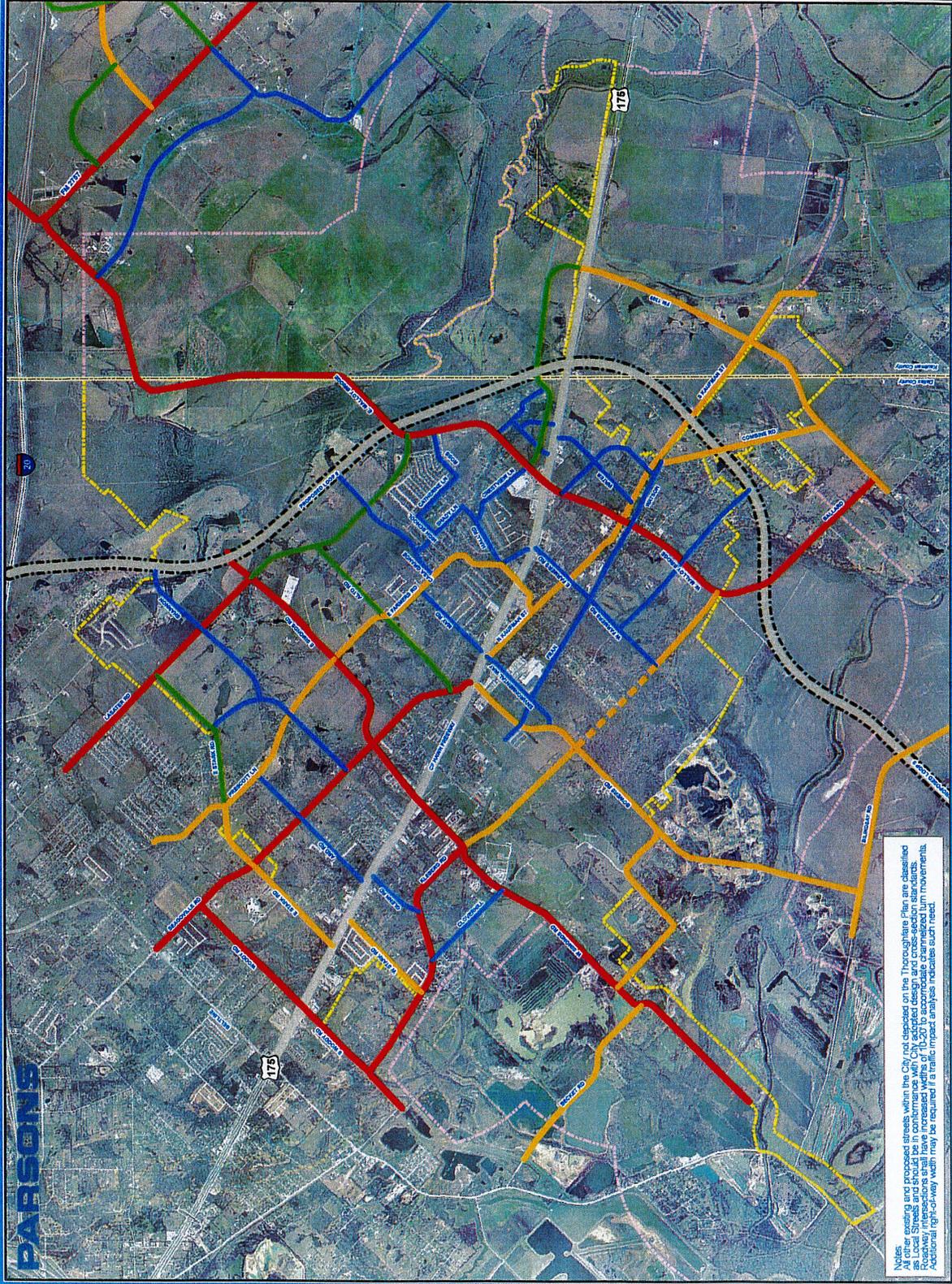
It is recognized that the portion of Kleburg/Bowers between Environmental Way and West Farmers may be difficult to implement because of the environmentally sensitive area of the Post Oak Preserve.

- Lasater Road between Simonds and Malloy Bridge was downgraded from a major arterial to major collector to provide a supporting facility to residential and potential commercial uses along this same segment of roadway. As the Loop 9 frontage road will in essence offer arterial capacity, the need for a second arterial in close proximity was not necessary. Its curvilinear nature will lower traffic speed for this mostly residential area.
- The potential of high employment levels in the Industrial Park creates the need for direct linkages to housing. The extension of Seagoville Road to Kleburg will offer access to residences north of US 175. To facilitate linkage with the revitalization effort of Downtown Seagoville, the upgrade of Fran/Watson to a Minor Collector would create a direct linkage between these nodes of activity.
- The upgrade of Fran/Watson streets would also serve to provide secondary access to US 175 at Seagoville Road. The conversion of the US 175 frontage road from two-way to one-way between Seagoville and North Kaufman, will have a negative effect in the sense that access to US 175 (via Seagoville Road) may place a heavier emphasis on the Hall Road interchange with US 175. The extension of Fran through the industrial park would help to offset this impact for those desiring to access US 175.

Also helping to reduce the impacts to Hall Road, is the upgrade of West Farmers between the future Bowers extension and US 175. This connection would facilitate access to westbound US 175 via a new Texas U-turn (TXDOT US 175 design) at Malloy Bridge Road.

- In the Downtown Seagoville revitalization area, several upgrades are proposed to provide a framework of pedestrian oriented streets to this area. These include Watson, Fran, Railroad, Kaufman, Water and Bluff Streets. Roadway design standards offering on-street parking, tree lines parkways, sidewalks and building setbacks to promote sidewalk cafes, outdoor seating areas of leisurely gathering. Standards have been developed for two and four-lane (both divided and undivided) sections. Proposed rights-of-way will range from 106' to 65'.

Figure 4-2
Recommended Thoroughfare Plan



Notes:
 All other existing and proposed streets within the City, not depicted on the Thoroughfare Plan, are classified as Local Streets and should be in conformed with the minimum standards of the City Thoroughfare Plan. Additional right-of-way width may be required if a traffic impact analysis indicates such need.

If desired, a potential one-way couplet could be implemented using Fran/Watson and Kaufman Streets between Ward and Bluff.

- Other plan additions include; the downgrade of Alto from Minor Arterial to Major Collector, the addition of Ard between Seagoville and Prescott as a Minor Collector, the extension of Fran through the Industrial Park to provide access to the City Park, the realignment of West Malloy Bridge near Bowers Road to facilitate access with Loop 9, and roadway additions to the ETJ area of northeastern Seagoville. With regard to Loop 9, it is important to note, that the Combine Street will not have access to Loop 9 due to its close proximity with Kaufman Street.

With regard to issues identified throughout the study process:

- *Access to/from the Seagoville Industrial Park.*
Access to US 175 would be facilitated with the extension of Seagoville Road, as a minor arterial, south to Bowers Street. This coupled with Environmental Way would give two options to US 175. Access to Loop 9, would be facilitated with the extension of Kleburg/Bowers Road as a minor arterial.
- *Capacity issues for major street crossings with US 175*
Capacity enhancements of interchanges at Malloy Bridge, Hall and Seagoville would be achieved via lane additions to the interior of the interchange, separate left-turn lanes, and Texas U-turns for both directions.
- *US 175 frontage road at Seagoville Road*
As mentioned earlier, the upgrade/extension of Fran to the Seagoville Road extension within the industrial park, and the upgrade of West Farmers would provide locations for additional access US 175. This will be critical once the conversion from two to one-way lanes are made on the frontage road.
- *Congestion of Hall Road at US 175*
The expansion and realignment of the Hall Road interchange with additional lanes (and Texas U-turns) will enhance the interchange carrying capacity. An additional northbound through-right lane should also be provided. This improvement may impact the pump facilities of the convenience store in the southeast quadrant of the interchange.
- *Roadway standards for the downtown revitalization planning efforts*
Roadway design standards offering on-street parking, tree lines parkways, sidewalks and building setbacks to promote sidewalk cafes, outdoor seating areas of leisurely gathering. Standards have been developed for two and four-lane (both divided and undivided) sections. Proposed rights-of-way will range from 106' to 65'.
- *Large scale residential developments to the east and ETJ of Seagoville*
These developments are supported with a 6-lane major arterial facility and other bordering and interior roadways. To ensure adequacy relative to the timing of implementation of these developments, a traffic impact analysis should be conducted for intersections within 1-mile of the site. Operational analyses should be conducted for background conditions, each phase of development, and 10 years after opening of the last phase of development.

Finally, the projected growth of the Seagoville area creates the need to consider some type of transit service in the future for supplementing the roadway system network. As a significant number of

vehicular trips are projected to travel to/from the south for work, consideration should be given to the potential inclusion into the DART transit system. The mixed-use and transit orientation of the Downtown Seagoville redevelopment would lend itself to multi-modal transit support.

THOROUGHFARE DESIGN STANDARDS

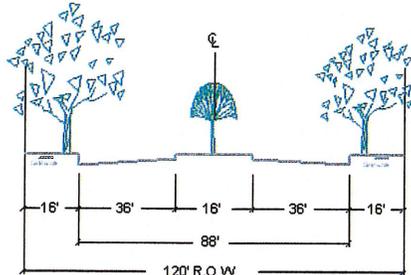
While thoroughfare classification reflects the functions that roadways serve as part of the street and highway network, the cross section of a roadway is related to traffic volume, design capacity, and Level of Service. Standard roadway cross-sections for the different classes of thoroughfares are listed in Table 4.2 and illustrated in Figure 4.3. Standards for freeways/tollways are the responsibility of TxDOT or others, and therefore not presented. In developed areas, varying design standards may be implemented to accommodate existing conditions.

The general roadway cross-sections to used throughout the city have not changed since being identified as part of the 2002 Comprehensive Plan effort. The only exception is for intersections, where an additional 10-20 feet should be included to accommodate potentially needed channelized turn movements such as a second left-turn or right-turn lane. To determine the exact dimensional requirements of each intersection, a traffic analysis should be conducted at the time of facility implementation. At a minimum, each general roadway cross-section has the ability to accommodate a separate left-turn lane. The right-of-way for minor arterial roadways is also designed to allow for single or dual left-turn lanes at the intersection with major arterial facilities. For minor collector roadways, a two-lane section may be increase to three-lanes to accommodate left-turn lanes at critical intersections.

Table 4.2 - Roadway Cross-Section Design Criteria

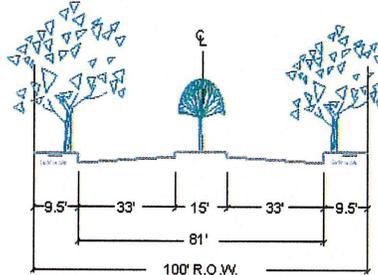
Roadway Type	General Roadways					Downtown Redevelopment Roadways			
	Major Arterial 6-lane Divided (Type A)	Minor Arterial 4/6-lane Divided (Type B)	Major Collector 4-lane Undivided (Type C)	Minor Collector 2/3-lane Undivided (Type D)	Local 2-lane Undivided (Type E)	4-lane Divided (4D)	4-lane Undivided (4U)	2-lane Undivided (2U)	2-lane Undivided Angle Prk (2U-AP)
ROW	120'	100'	80'	60'	50'	106'	89'	65'	87'
Pavement Width (face-to-face)	2 @ 36'	2 @ 33'	44'	36'	30'	2 @ 31'	62'	38'	60'
Lane Width	12'	11'	11'	12'	15'	11.5'	2@12' Outer 2@11'	11'	12'
Left-Turn Lanes	1 @ 12'	1 @ 11'	1@12'	1@12'	--	--	--	--	--
Median Width	16'	15'	--	--	--	16'	--	--	--
Sidewalks	Both	Both	Both	Both	Both	Both	Both	Both	Both
Parking	None	None	None	Limited	Permitted	Parallel	Parallel	Parallel	Head-in Angle
Parkway Width	16'	9.5'	18'	12'	10'	13.5'	13.5'	13.5'	13.5'

General Roadways



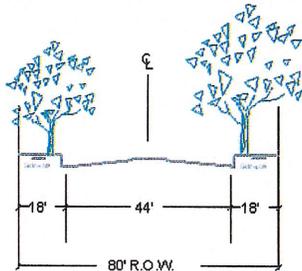
TYPE "A"

Major Thoroughfare (Divided)



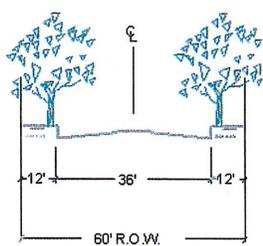
TYPE "B"

Minor Thoroughfare (Divided)



TYPE C

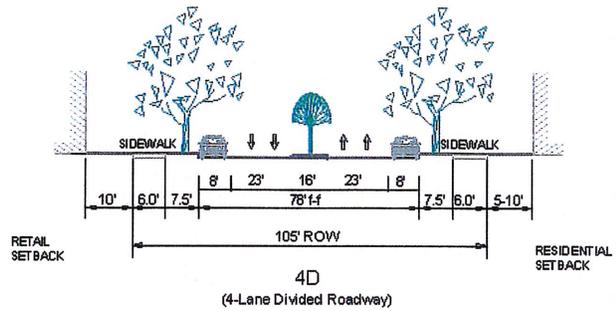
Major Collector



TYPE "D"

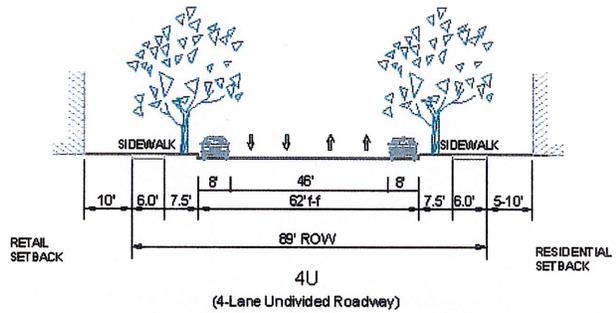
Minor Collector Street

Downtown Redevelopment Area



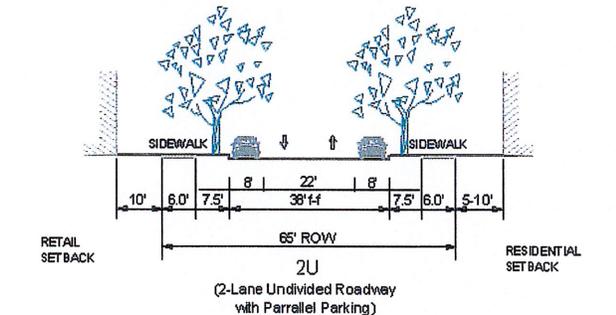
4D

(4-Lane Divided Roadway)



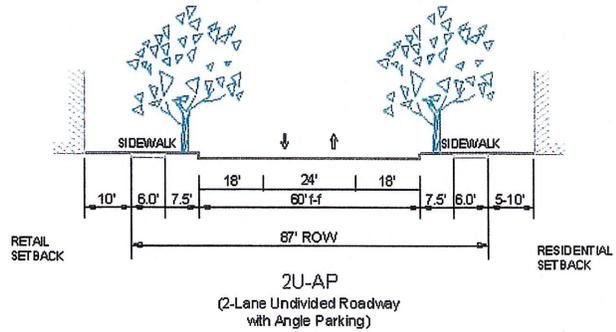
4U

(4-Lane Undivided Roadway)



2U

(2-Lane Undivided Roadway with Parallel Parking)



2U-AP

(2-Lane Undivided Roadway with Angle Parking)

Thoroughfare Development Requirements and Standards

Planning, design and construction of thoroughfares must comply with the development standards that are contained in the City's Subdivision Ordinance. Requirements for thoroughfare development should include standards and criteria governing the following characteristics of thoroughfares:

Location and Alignment of Thoroughfares – The general location and alignment of thoroughfares must be in conformance with the Master Thoroughfare Plan. Subdivision plats should provide for dedication of needed right-of-way for thoroughfares within or bordering the subdivision.

Any major changes in thoroughfare alignment that are not consistent with the plan require the approval of the Planning and Zoning Commission and City Council through a public hearing process. A major change would include any proposal that involves the addition or deletion of established thoroughfare designations, or changes in the planned general alignment of thoroughfares that would affect parcels of land beyond the specific tract in question.

Rights-of-Way and Pavement Width – The pavement width and rights-of-way width for thoroughfares and other public streets should conform to the standards, as specified earlier, unless a variance is granted. Plats that include or are bordered by an existing thoroughfare with insufficient rights-of-way width should be required to dedicate land to compensate for any rights-of-way deficiency of that thoroughfare. When a new thoroughfare extension is proposed to connect with an existing thoroughfare that has narrower rights-of-way, a transitional area should be provided.

Continuation and Projection of Streets – Existing streets in adjacent areas should be continued and when an adjacent area is undeveloped, the street layout should provide for future projection and continuation of streets into the undeveloped area. Where adjacent land is undeveloped, stubbed streets should include temporary turnarounds to accommodate fire apparatus.

Location of Street Intersections – New intersections of subdivision streets with existing thoroughfares within or bordering the subdivision should be planned to align with existing intersections, where feasible, to avoid the creation of offset or “jogged” intersections and to provide for continuity of existing streets, especially collectors and higher classes of thoroughfares.

Off-Set Intersections – Offset or “jogged” street intersections should have a minimum separation of 125 feet between the centerlines of the intersecting streets.

Angle of Intersections – The angle of intersection for street intersections should be as nearly at a right angle as possible. Corner cutbacks or curb radii should be required at the acute corner of the right-of-way line, to provide adequate sight distance at intersections.

Cul-De-Sac – Cul-de-sac streets should have a maximum length of no more than 600 feet measured from the connecting street centerline to centerline of radius point, with a paved turnaround pad of at least 80 feet in diameter and a right-of-way diameter of at least 100 feet in residential areas, and at least a 180 feet of pavement within a diameter of 200 feet of right-of-way diameter in commercial and industrial areas.

Residential Lots Fronting on Arterials – Wherever feasible, subdivision layout should avoid the creation of residential lots fronting on arterials, with direct driveway access to the arterial street. Lots should be accessed from collector or local/residential streets within or bordering the subdivision or an auxiliary street designed to accommodate driveway traffic.

Geometric Design Standards and Guidelines – Other requirements and guidelines for the geometric design of thoroughfares and public streets are provided in Subdivision Ordinance.

Private Streets – The Planning and Zoning Commission should not approve a plat containing private streets unless the proposal to utilize private streets has been previously approved by the City Council and adequate assurances are provided for maintenance. Private streets should be designed and constructed in conformance with City Standards. The same shall apply for gated communities, if approved. Gates for such communities shall allow for emergency access, without restriction, to authorized emergency vehicles and apparatus.

Sidewalks - Within the boundaries of a subdivision, sidewalks should be installed on both sides of arterial, collector and local/residential streets.

Plan Administration

In the administration and enforcement of the Thoroughfare Plan, special cases and unique situations will occasionally arise where existing physical conditions and development constraints in certain areas conflict with the need for widening of designated thoroughfares to the planned rights-of-way width and roadway cross-section. Such special circumstances require a degree of flexibility and adaptability in the administration and implementation of the plan. Acceptable minimum design criteria and special roadway cross-sections may have to be applied in constrained areas where existing conditions limit the ability to meet desirable guidelines. Special roadway cross-sections should be determined on a case-by-case basis when a unique design is necessary and subject to the approval of City Staff, and/or the Planning and Zoning Commission. The standard roadway cross-sections should be used in newly developing areas and whenever possible, in existing developed areas.

Plan Amendment Process

It will be necessary to periodically consider and adopt amendments to the Thoroughfare Plan to reflect changing conditions and new needs for thoroughfare system improvements and development.

A systematic procedure should be followed for making plan amendments, including a schedule for considering changes.

Typically, plan amendment requests may originate from landowners, civic groups, neighborhood associations, developers, other governmental agencies, city staff and other interested parties. Proposed revisions should be analyzed by the City Planner, City Public Works/Engineer, and other City Staff, and the proposed changes and staff recommendations should then be considered by the Planning and Zoning Commission. The Planning and Zoning Commission should conduct a public hearing on proposed plan amendments, including advanced notice of such hearing. The burden for proving compelling reasons for and public benefit of any proposed changes should rest with the requesting parties. Decisions and determinations should represent the best interests of the public.

The revised Thoroughfare Plan, including any approved plan amendments, should be adopted by the Planning and Zoning Commission and submitted to the City Council for adoption. The amended plan becomes effective upon adoption by the City Council.

SECTION 5: DESIGN STANDARDS

INTRODUCTION

Design standards ensure for standardized and consistent implementation of roadways in the city. The arrangement, character, extent, width and location of all streets should be in conformity with the City's Thoroughfare Plan, and should be considered in their relation to existing and planned streets, topographical and environmental considerations, scenic views and the land uses proposed to be served by such streets.

In the interpretation and application of the provisions of these standards, it is the intention of the Plan that the principles, standards and requirements provided herein contain minimum requirements for the development of property in Seagoville, and where other ordinances of the City are more restrictive, such other ordinances should control. All deviations from the provisions presented herein should be approved by the Seagoville City Staff which includes, the City Manager, Director of Public Works, Director of Planning, City Fire Chief, and any others deemed necessary by the City Manager.

Street Design

- A. **Thoroughfare Definitions** - The City of Seagoville recognizes four basic classifications of public roadways that include; freeways, arterials, collectors, and local streets as identified in Chapter 4. Each class provides a certain degree of continuity, capacity, and accessibility to adjacent land uses. While differentiated by function, there is also a variance in geometric design. Table 5.1 summarizes the general design criteria of roadways within Seagoville.
- B. **Roadway Geometrics** - Geometrics of city streets may be defined as the geometry of the pavement and curb areas that govern the movement of traffic within the confines of the rights-of-way (ROW). Included in the geometrics are pavement width, degree of curvature, width of traffic lanes, median nose radii, curb radii at street intersections, cross fall, crown height, pavement thickness and geometric shapes of islands separating traffic movements and other features.
 1. **Design Speed** - The design speed is a primary factor in the horizontal and vertical alignment of roadways. Design features such as curvature, super-elevation, turning movement radii and sight distance affects roadway lane width, pavement width, pavement cross-fall, pavement crown and clearances. The design speeds depicted should be used where existing ground slopes are less than six percent (6%). Refer to Table 5.1.
 2. **Grades** - Roadway grades should be a minimum of six-tenths percent (0.6%) on order to insure proper flow of surface drainage toward inlets and a maximum of six percent (6%). Steeper grades may be permitted on local residential streets and where required by topographical features, as approved by the City Engineer or his/her designee.

3. Roadway Centerline - Roadways should be placed in the center of the ROW, but may be shifted slightly to avoid groupings of trees. The centerline of curves should be tangent to the centerline of street at each end of curve.

Table 5.1: City of Seagoville Thoroughfare Definitions

Criteria	Thoroughfare Class				
	Major Arterial "Type A"	Minor Arterial "Type B"	Major Collector "Type C"	Minor Collector "Type D"	Local ⁽²⁾⁽³⁾ "Type E"
Right-of-Way (ROW)	120' ⁽⁴⁾	100' ⁽⁵⁾	60' ⁽⁶⁾	60'	50'
Pavement Width (face to face)	2 @ 36'	2 @ 24'	36'	36'	30'
Traffic Lanes	6	4/6	2/3	2/3	2
Left Turn-lane Width	2 @ 12'	1 @ 11'	--	--	--
Right Turn-lane Width	11'	11'	11'	--	--
Median Width	16'	15'	--	--	--
Parkway Width	16'	9.5'	18'	12'	10'
Minimum Pavement Thickness ⁽⁷⁾	8"	8"	7"	6"	6"
Design Speed, V (MPH)	50	45	30	30	25
Minimum Grade	0.6%	0.6%	0.6%	0.6%	0.6%
Maximum Grade	6%	6%	6%	8%	8%
Min. Horizontal Radii ⁽¹⁾	1,400'	1,050'	450'	450'	200' ⁽⁴⁾
Min. Tangent Between Curves	100'	100'	100'	100'	--
Min. Median Opening	600'	600'	--	--	--
Min. Driveway Spacing	240'	200'	90'	100'	20'
Stopping Sight Distance	475'	400'	200'	200'	150'
Parking	None	None	None	Limited	Permitted
Volume Range (VPD)	36-45,000	20-28,000	12-18,000	1-15,000	200-1,500

- (1) Absolute minimum based on -2% cross slope.
- (2) Local Street with front-entry access.
- (3) Trees required in parkway. (Rear entry product will have a 26' street width, unless otherwise noted)
- (4) 140' ROW at intersections with Type A or B thoroughfare.
- (5) 110' ROW at intersections with Type A or B thoroughfare.
- (6) 70' ROW at intersections with Type C thoroughfare.
- (7) Thickness should be based on the geotechnical soils report.

C. **Minimum Horizontal Design Radius:** The minimum centerline radius is a function of design speed, super-elevation and vehicle side friction. The minimum acceptable horizontal radius is shown in Table 5.1.

D. **Minimum Vertical Alignment:** Vertical curves are utilized in roadway design to affect gradual change between tangent grades and will result in design which is safe, comfortable in operation, pleasing in appearance and adequate for drainage. Vertical curve design should be in accordance with the American Association of Highway and Transportation Officials (AASHTO).

E. **Standard Intersection Layout:**

1. Street intersections should intersect at ninety degree (90°) angles. Intersection approaches for Type A and B thoroughfares should remain perpendicular for a minimum distance equal to the corresponding design speed Stopping Sight

- Distance (SSD) identified in Table 5.1. For residential collector and/or local street intersections, a five degree (5°) tolerance is allowable.
2. The curb radii should be twenty feet (20') where Type D and E thoroughfares intersect with Type D, and E thoroughfares. All other intersecting streets, curb radii should be thirty feet (30').
 3. Intersections of Type A and B should maintain a maximum slope of two percent (2%) a minimum distance of two hundred feet (200') upstream and downstream of the intersection.
 4. Roadway connections to a Type A or B thoroughfare should maintain a maximum slope of two percent (2%) a minimum distance of one hundred feet (100') upstream and downstream of the intersection.
 5. At four-way intersections of parabolic streets, the reduction of the crown height should occur on the thoroughfare with the through gutter.
 6. Alley curb radii should be fifteen feet (15').
 7. A minimum of nine and a half feet (9.5') of parkway should be maintained from the back of the curb along the curb's radius.
 8. ROW width for a Type A thoroughfare that intersects a Type A or B thoroughfare should be up to one hundred forty feet (140') for a distance of two hundred feet (200') and then taper at a 15:1 ratio to the standard ROW width. This allows for the future construction of additional traffic lanes at the intersection.
 9. ROW width for a Type B thoroughfare that intersects a Type A or B thoroughfare should be one hundred ten feet (110') for a distance of one hundred fifty feet (150') and then taper at a 15:1 ratio to the standard ROW width to allow build-out of the intersection.
- F. Residential Frontage - Residential houses should not front a Type A, B, or C thoroughfare unless parallel access roads are provided. Minimum distances between adjacent curbs of the thoroughfare and the access road should be twenty feet (20'). Access road ROW should be in addition to the thoroughfare ROW and should not connect to the adjacent thoroughfare.
- G. Bike Lane Consideration – If a thoroughfare is designated as a bike route, the width of the outside lane and the width of the ROW should be increased by three feet (3') on Type A and B thoroughfares.

Median, Left-Turn Lane, Right-turn lane, and Deceleration Lane Design

A. Required Median Openings and Left-Turn Lanes:

1. Median openings on divided thoroughfares should be required at all street intersections. Median openings may be constructed to serve non-residential drives provided that the minimum spacing requirements listed are met. Left-turn lanes should be provided at all median openings.
2. All non-residential lots on a divided thoroughfare should have direct or indirect access to a median opening. Indirect access should be provided through a series of fire lane and access easements. Multifamily developments, on a divided thoroughfare, should have direct access to a median opening. Median openings for street intersections and non-residential driveways may be moved at the discretion of the City to facilitate traffic flow as long as minimum distances are maintained.

B. Minimum Left-Turn Storage, Transition Length, and Median Opening Width, Location, and Spacing Requirements:

1. Left-Turn Lane Storage:

- a. All left-turn storage areas on divided thoroughfares should be 11-12 feet wide.
- b. Storage requirements listed: Type A: 150-200', Type B: 150'. Storage requirements may be increased by the City based upon actual and projected traffic demands of the properties, which will be served by the left turn lane.
- c. Left-turn lanes will be delineated by using buttons.

2. Transition Length - The transition specifications for left-turn lane should be as follows: Type A: 200', Type B: 100'.

3. Median Openings:

- a. Median openings at intersections should accommodate all turning paths and crosswalks.
- b. The width of mid-block median openings should not be less than sixty feet (60'). They may be greater than sixty feet (60') where necessary to accommodate turning paths and crosswalks subject to approval by the City Engineer or his/her designee.

4. Minimum Spacing Between Intersections and First Mid-Block Median Openings - The minimum distance to the first mid-block median opening along Type A and B thoroughfares that are immediately downstream from a Type A or B thoroughfare should be 600 feet.

C. Minimum Right-Turn Storage and Transition Length:

1. Right-Turn Lane Storage:

- a. Right-turn lanes on Type A and B thoroughfares intersecting with Type A and B thoroughfares should be provided as warranted by traffic demands. At all other intersections on Type A and B thoroughfares, right-turn lanes should be constructed at time of development.
- b. All right-turn storage areas should be eleven feet (11') wide.
- c. An additional ten feet (10') of ROW should be provided with right-turn lanes.
- d. Right-turn lanes will be delineated by using buttons.
- e. Storage requirements: Type A: 200', Type B: 150', Type C: 100'. Storage requirements may increase based upon actual and projected traffic demands.

2. Transition Length – The transition specifications for right-turn lane entrance areas should be: Type A: 150', Type B: 150', Type C: 100'.

D. Cost of Median Openings and Turn Lanes:

1. Median openings, left-turn lanes, and right-turn lanes constructed for residential streets and/or subdivision entrances not referenced on the Thoroughfare Plan should be the responsibility of the developer and should be paved to City standards and inspected by the City.
2. Median openings, left-turn lanes and deceleration lanes for Multifamily and non-residential developments should be the responsibility of the developer and should be paved to City standards and inspected by the City.
3. The City should require escrow of funds for such future improvements prior to final acceptance or Certificate of Occupancy, whichever occurs first. The escrow should include all construction costs; engineering (7% of construction cost) and inspection (2.5% of construction cost).

Driveway Design

- A. Driveway design standards are needed to provide safe and efficient vehicular access to and from the public street system, to provide public street capacity for accommodating peak traffic volumes of public streets, to maintain smooth traffic flow, and to maintain street ROW and drainage. The intent of driveway design standards is to achieve the following:
1. Prohibit the indiscriminate location and spacing of driveways while maintaining reasonable vehicular access to and from the public street system.

2. Reduce conflicting turning movements and congestion thereby reducing vehicular accidents.
3. Maintain and enhance a positive image for the attraction of new, high quality, residential and non-residential development in the City.
4. Provide right-turn and deceleration lanes for all streets and driveways along Type A and B Thoroughfares, and State Roadways.

B. Definition of Driveway Types:

1. Residential Driveway - Provides access to a single-family residence, duplex, or multifamily building containing four or fewer dwelling units. These drives should intersect Type D, E, and F thoroughfares only.
2. Non-Residential Driveway:
 - a. Commercial Driveway - Provides access to an office, retail or institutional building, or multifamily building having more than four dwelling units. It is anticipated that such buildings will have incidental truck service. Commercial drives should access Type A through Type C thoroughfares only.
 - b. Industrial Driveway - Serves truck movements to and from loading areas of an industrial facility, manufacturing, warehouse, or truck terminal. A retail development may have one or more driveways specially designed, signed, and located to provide access for trucks. These types of driveways should be considered industrial driveways. Industrial plant driveways whose principle function is to serve administrative or employee parking lots should be considered commercial driveways. Industrial drives should access Type A through Type C thoroughfares only.
3. Standard Driveway - Provides two-way access at a single, undivided curb opening.
4. One-Way Driveway - Provides inbound or outbound access and can only be permitted when the orientation of on-site circulation and parking layout clearly utilize the driveway for one-way movements.
5. High Capacity Driveways - Intended to provide two-way access with geometric provisions which more adequately respond to greater driveway volumes and/or access limitations than standard driveways. These provisions include increased width and/or internal storage. Median divider and/or deceleration lanes may also be required.

C. General Design Parameters:

1. The centerline angle for a driveway approach should be ninety degrees (90°) to the street curb line for all driveways.
 2. Driveways should not be permitted in the transition area of any right-turn lane or deceleration lane.
 3. Driveways that intersect at a mid-block median should have the driveway centerline intersect with the midpoint of a median opening (measured nose-to-nose).
 4. Driveway restrictions can be required by the City Engineer to ensure adequate circulation.
 5. Driveway elevations at the ROW line should be a minimum of six inches (6") above the street gutter. A residential driveway that intersects an alley should be three inches (3") above the edge of the alley pavement at the ROW line.
 6. Cross access is required between adjacent retail, office and commercial properties.
 7. Driveway grades in a fire lane should not exceed six percent (6%) either longitudinally or laterally to accommodate emergency vehicle access. Steeper grades may be permitted in areas where buildings are not present, as approved by the Engineering Department and the Fire Department.
 8. Differential grades on driveways should not exceed twelve percent (12%).
- D. Driveway Width - The width of a driveway refers to the width of pavement at the property line and is measured where the curb return radii ends perpendicular to the street curb or edge of pavement. The minimum and maximum widths of driveways are listed in Table 5.2.

Table 5.2: Minimum and Maximum Driveway Widths

<u>Driveway Type</u>	<u>Land Use</u>	<u>Width in Feet (face to face)</u>	
		<u>Minimum (ft)</u>	<u>Maximum(ft)</u>
Standard Drive	Residential	10	24
	Commercial/Multifamily	24	30
	Industrial	30	40
One-Way Drive	Residential (circular)	10	16
	Commercial	16	24
	Industrial	24	24
High Capacity Drive for Non-residential Uses	Entrance Lane	16	24
	Exit Lane: One	12	16
	Two	24	24
	Three	30	30
Driveway Medians (non-residential/multifamily uses)		4	11

Notes: 1) The maximum width for service station driveways should be forty feet (40'). 2) Driveways that serve as a fire lane should be a minimum of twenty-four feet (24') in width.

E. Driveway Radius:

1. All driveways intersecting dedicated streets should be built with a circular curb radius connecting the six-inch (6") raised curb of the roadway to the design width pavement of the driveway.
2. Driveway radii should fall entirely within the subject property so as to begin at the street curb, at the extension of the property line.
3. Table 5.3 presents the minimum and/or maximum standards to be applied in designing and locating driveways on public streets.
4. High capacity driveways should meet the same standards as those defined in Table 5.2.

F. Driveway Spacing:

1. Driveways should be spaced at distances sufficient to ensure that conflicting movements at adjacent driveways do not overlap.
2. Spacing between driveways should be measured along the property line from the edge of one driveway to the closest edge of the next driveway and not from centerline to centerline.

Table 5.3: Driveway Design Requirements

<u>Criteria</u>	<u>Thoroughfare Classification</u>	<u>Residential Driveway (ft)</u>	<u>Commercial/ Multifamily Driveway (ft)</u>	<u>Industrial Driveway (ft)</u>
Driveway Curb Radius	Major Arterial "Type A"	--	20-30	20-30
	Minor Arterial "Type B"	--	20-30	20-30
	Major Collector "Type C"	--	20-30	20-30
	Minor Collector "Type D"	5-10	20	--
	Local "Type E"	5-10	--	--
Minimum Driveway Spacing Along Roadway (edge to edge)	Major Arterial "Type A"	--	240	240
	Minor Arterial "Type B"	--	200	200
	Major Collector "Type C"	--	90	90
	Minor Collector "Type D"	20	max. of 1 drive	--
	Local "Type E"	20	--	--
Minimum Distance to Intersection Along Roadway (edge to intersecting ROW) ⁽¹⁾	Major Arterial "Type A"	--	75 / 100 ⁽²⁾	75 / 100 ⁽²⁾
	Minor Arterial "Type B"	--	75 / 100 ⁽²⁾	75 / 100 ⁽²⁾
	Major Collector "Type C"	--	50 / 50	50 / 50
	Minor Collector "Type D"	20 / 20	100 / 100	--
	Local "Type E"	10 / 10 from tangent to edge of drive	--	--

(1) upstream / downstream distance to intersection. (2) Driveways without a deceleration lane shall be located a maximum distance of one hundred seventy feet (170') to the downstream edge from the intersecting ROW.

3. Table 5.3 defines minimum driveway spacing as a function of street classification.
4. The driveway spacing from a railroad crossing should be a minimum of fifty feet (50') from the railroad ROW.
5. A residential land use should be allowed a maximum of one (1) driveway opening per lot, tract, or parcel except as provided by the approval of a circular driveway.
6. To minimize the number of curb cuts along public drives, joint or shared access is encouraged. Shared access drives should conform to the following standards:
 - Residential: no less than ten feet (10') on each property (20' min. – 24' max.).
 - Commercial/Industrial: no less than twelve feet (12') on each property (24' min – 36' max).
 - Joint access drives for commercial/industrial developments should include full drive width and access pavement and be built at the same time for a development.
 - The spacing and location of driveways should be related to both existing adjacent driveways and those shown on approved development plans.

G. Distance Between Driveway and Intersection:

1. Adequate distance between cross street intersections and access drives should be provided to ensure intersection/driveway conflict areas are minimized.
2. Table 5.3 defines the upstream and downstream distance from an intersection as a function of street classification.

H. Deceleration Lanes:

1. Deceleration lanes for right-turns into driveways will ease the negative impact a driveway will have on traffic flow, driveway conflict points and safety due to speed differential.
2. A driveway located within the right-turn lane of a public street intersection should be extended a minimum of seventy-five feet (75') in advance of the intersecting ROW.
3. No driveway should be permitted within the transition area of a right-turn or deceleration lane, unless otherwise approved by the City Engineer. If allowed, transition for right-turn or deceleration lane should be extended a maximum of fifty feet (50').

4. The developer should be responsible for the design, ROW adjustment of utilities, and construction costs of any auxiliary and deceleration lane required as a condition of a driveway permit.
 5. A ten-foot (10') street easement should be provided for deceleration lanes for non-residential developments.
- I. Driveway Storage Lengths:
1. On-site internal storage should be provided at all non-residential and multifamily driveways for queuing of vehicles off-street, to minimize congestion, and increase safety both on the public street and within the driveway.
 2. Internal storage requirements should be based on the total number of parking spaces accessible by the affected driveway.
 3. Internal storage length should be measured from the ROW line to the first intersecting aisle or parking stall.
 4. Table 5.4 presents internal storage requirements.

Table 5.4: Minimum Driveway Storage Lengths

<u>Parking Spaces per Driveway</u>	<u>Storage Required (ft)</u>			
	<u>Multifamily / Commercial Uses</u>		<u>Industrial Land Uses</u>	
	<u>Non-Median Opening</u>	<u>Median Opening</u>	<u>Non-Median Opening</u>	<u>Median Opening</u>
Less than 25	25	25	25	25
25-50	25	40	25	40
51-100	25	40	40	40
101-200	40	80	40	60
More than 200	100	150	40	100

Sight Visibility Requirements

A. Adequate sight distance at the intersection of a thoroughfare and a proposed thoroughfare/driveway/alley must be ensured. This sight distance is provided through the use of a Corner Visibility Triangle and/or a Sight Line Triangle. Corner Visibility Triangles should be dedicated as ROW and Sight Line Triangles should be identified and dedicated as Visibility, Access and Maintenance Easements (VAM's). In addition, a Sight Line Triangle must also be provided for the following cases:

1. Where a driveway, alley, or any thoroughfare that is controlled by a stop sign intersects with an uncontrolled thoroughfare.

2. On any signalized intersection approach where right-turn on red operation is permitted, a sight line triangle must be provided for the right turn driver.

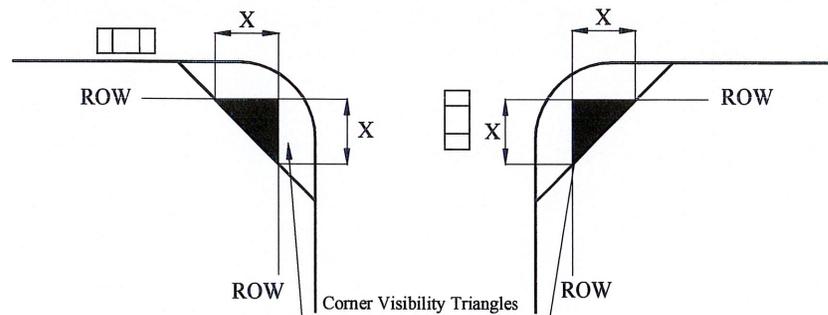
B. Corner Visibility Triangle Defined:

1. The corner visibility triangle is defined at an intersection by extending the two ROW lines for from their point of intersection to a distance as shown on Table 5.5. These two points are then connected with an imaginary line to form the corner visibility triangle as shown in Figure 5.1. If there are no curbs existing, then the triangular area should be formed by extending the property lines for a distance of thirty feet (30') from their point of intersection.

Table 5.5: Corner Visibility Triangle Distances

<u>Type of Thoroughfare On</u>	<u>Type of Thoroughfare At</u>	<u>Distance (X)</u>
A, B	A Through F	25'
C	C, D	25'
C	E, F	10'
D, E	D, E, F	10'
TxDOT,	TxDOT, A - E	25'

Figure 5.1: Corner Visibility Triangle for an Intersection



2. Where alleys intersect residential streets (Type E), the corner visibility triangle is measured as fifteen feet (15') along the residential street ROW and five feet (5') along the alley ROW from the point of intersection. These two points are then connected with an imaginary line to form the corner visibility triangle as shown in Figure 5.2.
3. Street intersections designed under the neo-traditional concepts should have a lesser corner visibility triangle along the curb lines.

C. Sight Line Triangle Defined:

1. The sight line triangle is formed by first extending a line along the center line of the proposed thoroughfare or drive that begins at the tangent curb of the intersecting thoroughfare and extends to its endpoint fifteen feet (15') into the proposed thoroughfare or driveway. For the sight line triangle to the left, construct a second imaginary line that is parallel to and five feet (5') out from the intersecting thoroughfare's curb that begins at the centerline of the side street and continues to the left for a distance L to its endpoint. Table 5.6 and Figures 5.2 and 5.3 detail the sight line triangle. In the case of the sight line triangle to the right, the second imaginary line is parallel and five feet (5') out from the nearest edge of the conflicting traffic flow (or adjacent median in the event of a divided thoroughfare). It begins at the centerline of the side street and continues to the right for a distance R to its endpoint.

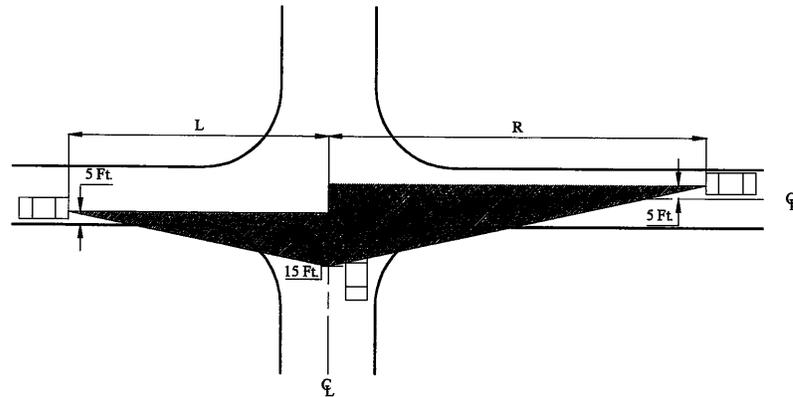


Figure 5.2: Sight Line Triangle

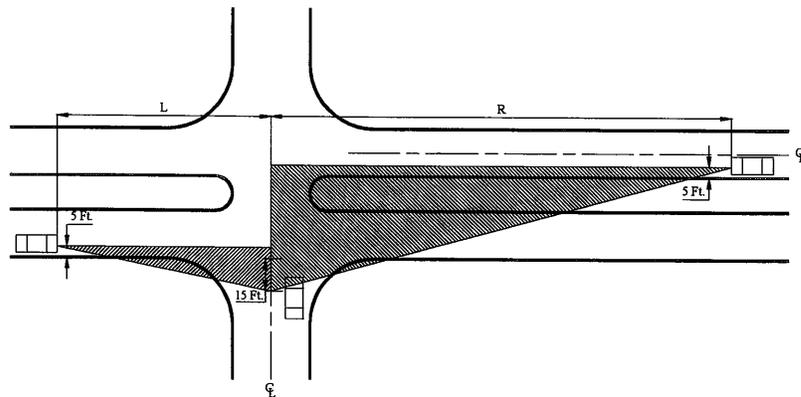


Figure 5.3: Sight Line Triangle for a Divided Thoroughfare

2. Distance to driver's eye for driveways that intersect a street is fifteen feet (15') from the intersecting curb line as shown in Figures 5.3 and 5.4.
3. In the case where the thoroughfare contains existing horizontal curvature, the distances L and R must be measured along the horizontal curve.

Table 5.6: Sight Line Triangle Distances

<u>Design Speed</u> <u>V (MPH)</u>	<u>SD to Left</u> ⁽¹⁾ <u>L (ft)</u>	<u>SD to Right by Lanes in Cross Section</u>		
		<u>R (ft)</u>		
		<u>2</u>	<u>4</u> ⁽²⁾	<u>6</u> ⁽²⁾
25	275 ⁽³⁾	275 ⁽³⁾	N/A	N/A
30	325	325	N/A	N/A
35	425	425	N/A	N/A
40	525	525	N/A	N/A
45	625	625	650	N/A
50	725	725	750	775

- (1) Source AASHTO Green Book – Chapter 9.
- (2) Manual Calculations of the Procedure in the Green Book indicate a twenty-five-foot (25') increase in sight distance to the right for each increase in cross section.
- (3) A lesser distance requires approval of the City Engineer.

D. Landscaping/Obstruction Clearance for Corner Visibility and Site Line Triangles:

1. No fence, wall, screen, sign, structure, foliage, hedge, tree, bush, shrub, berm, driveways, parking, drive aisles, or any other item, either man-made or natural should be erected, planted, or maintained in a position that will obstruct or interfere with a driver's clear line of sight within both the corner visibility and sight line triangle.
2. Vision at all intersections where streets intersect at or near right angles should be clear at elevations between thirty inches (30") and nine feet (9') above the average gutter elevation within each triangle.

E. Rights-of-Way Obstructions Outside the Site Line Triangles:

1. Fences, walls, screens, signs and other structures should conform to the city standards.
2. Foliage of hedges, trees and shrubs in ROW above triangles should be maintained such that the minimum overhang above a sidewalk should be seven feet (7') and the minimum overhang above a street should be fourteen feet (14').
3. All other areas within ROW should be clear at elevations between thirty inches (30") and nine feet (9') above the average gutter.
4. Plants in the ROW that will grow over thirty inches (30") (when mature) above the adjacent street's curb should conform to the above requirements, where applicable.

SECTION 6: RECOMMENDATIONS

INTRODUCTION

The purpose of the Seagoville Thoroughfare Plan, as a component of an overall Comprehensive Plan, is to accommodate the existing and future roadway transportation needs of the City. The Thoroughfare Plan is one element of a coordinated transportation system, which addresses the intermodal and multi-modal transportation needs of the City, while maintaining and improving the social, economic, and environmental quality of this community.

The Seagoville Thoroughfare Plan is designed and intended to provide an efficient, structured framework for the smooth flow of traffic that will result from future growth and development within southeast Dallas County and northwest Kaufman County. The Plan is an overall guide that should be used by the community to achieve an integrated, unified, and safe transportation system. The Plan encourages the creation of residential neighborhoods with a minimal amount of through traffic, while providing higher capacities for routes that are intended to move both regional and local traffic through the community. The Thoroughfare Plan specifies roadway routes/alignments, pavement and right-of-way configurations (cross-sections), and other recommendations based upon the projected future traffic needs of Seagoville.

RECOMMENDATIONS

The following statements highlight general recommendations as it relates to the implementation of the Thoroughfare Plan:

- Adopt a thoroughfare plan that classifies the roadway network according to a functional role that facilities are intended to provide.
- Implement an access management program designed to reduce the number of conflicts between through and turning movements. Encourage the use of shared access drives and common circulation systems within clusters of development.
- Establish guidelines for the requirement of traffic impact analyses for all major development proposals in the City.

The proper administration of the Seagoville Thoroughfare Plan will require:

Coordination of Capital Improvements -- Many of the roadways, which will be improved in Seagoville, will involve cooperation with TxDOT, Dallas County and Kaufman County. In many cases, this will involve some financial participation by Seagoville. Future capital improvement bond programs should be coordinated with the State's ability to participate in any of these facilities. Seagoville will likely have to assume the responsibility for requiring or constructing at least a portion of its roadway system, particularly collector streets, as it grows. It should be recognized that the roadway system would be built up incrementally over an extended period, lasting 25 to 50 years.

Subdivision Control -- The subdivision of land into building sites represents the first step in the

development of urban land uses and the creation of traffic generators. Reasonable right-of-way must be set-aside at the time of subdivision platting so that adequate roadway capacity can eventually be built as needed without adversely affecting the value, stability and long-range character of the area being developed. Specifically, right-of-way must be dedicated in accordance with the currently adopted Thoroughfare Plan at the time each plat is approved.

Zoning and Land Use Control -- The adequacy of existing and planned roadways must be taken into consideration in all changes of zoning and land use. When such changes occur, the land area allocated for street use (i.e., right-of-way) should be provided commensurate with the overall use and development intensity contemplated within the area.

Building Lines -- Where widening of existing roadway rights-of-way will be needed in the future, buildings being proposed for development today should be set back to allow for the planned widening (i.e., the ultimate right-of-way width) to ensure that the uses will function properly with the new roadway after the widening occurs. In some cases, it may be desirable to establish building lines on particular properties by ordinance to ensure the orderly and uniform development of roadway frontage.

The plan should be flexible and should be reviewed on a regular basis to incorporate changes in local conditions. The plan is a guide that indicates roadway capacity needs in response to planned land uses in an area and serves as a basis for subdivision requirements. In developed sections of the City, the Thoroughfare Plan provides guidance for upgrading and/or protecting the integrity and character of existing thoroughfares.

Finally, community objectives for maintaining a rural character for the City while accommodating development help to further determine roadway patterns, access characteristics and the design of roadway corridors.

AN ORDINANCE OF THE CITY OF SEAGOVILLE, TEXAS

ORDINANCE NO. 01-05

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SEAGOVILLE, TEXAS AMENDING THE MASTER THOROUGHFARE PLAN FOR THE SOUTHEASTERN SECTOR OF THE CITY AS DEPICTED IN EXHIBIT "A" ATTACHED HERETO AND INCORPORATED HEREIN; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City has determined that the southeastern sector of the City will undergo significant growth along the US 175 corridor in the near future; and

WHEREAS, the City Council has conducted a public hearing and determined that it would be in the best interest of the City to amend the Master Thoroughfare Plan as herein provided;

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SEAGOVILLE, TEXAS:

Section 1. That the City of Seagoville Master Thoroughfare Plan, a part of the Comprehensive Plan of the City, shall be amended for the southeastern sector of the City as depicted in Exhibit "A," which is attached hereto and incorporated herein as if set forth in full.

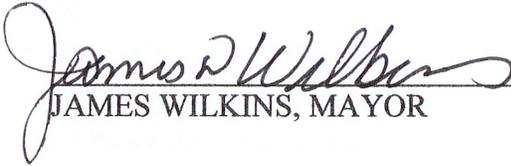
Section 2. That the Master Thoroughfare Plan of the City of Seagoville, Texas, as adopted and amended, shall remain in full force and effect, save and except as amended by this ordinance.

Section 3. That all provisions of the ordinances of the City of Seagoville, Texas, in conflict with the provisions of this ordinance are hereby amended or repealed, and all other provisions of the ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.

Section 4. That this ordinance shall become effective immediately from and after its passage, as the law and charter in such cases provide.

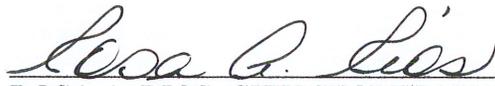
DULY PASSED AND APPROVED by the City Council of the City of Seagoville, Texas this 20th day of January, 2005.

APPROVED:



JAMES WILKINS, MAYOR

ATTEST:

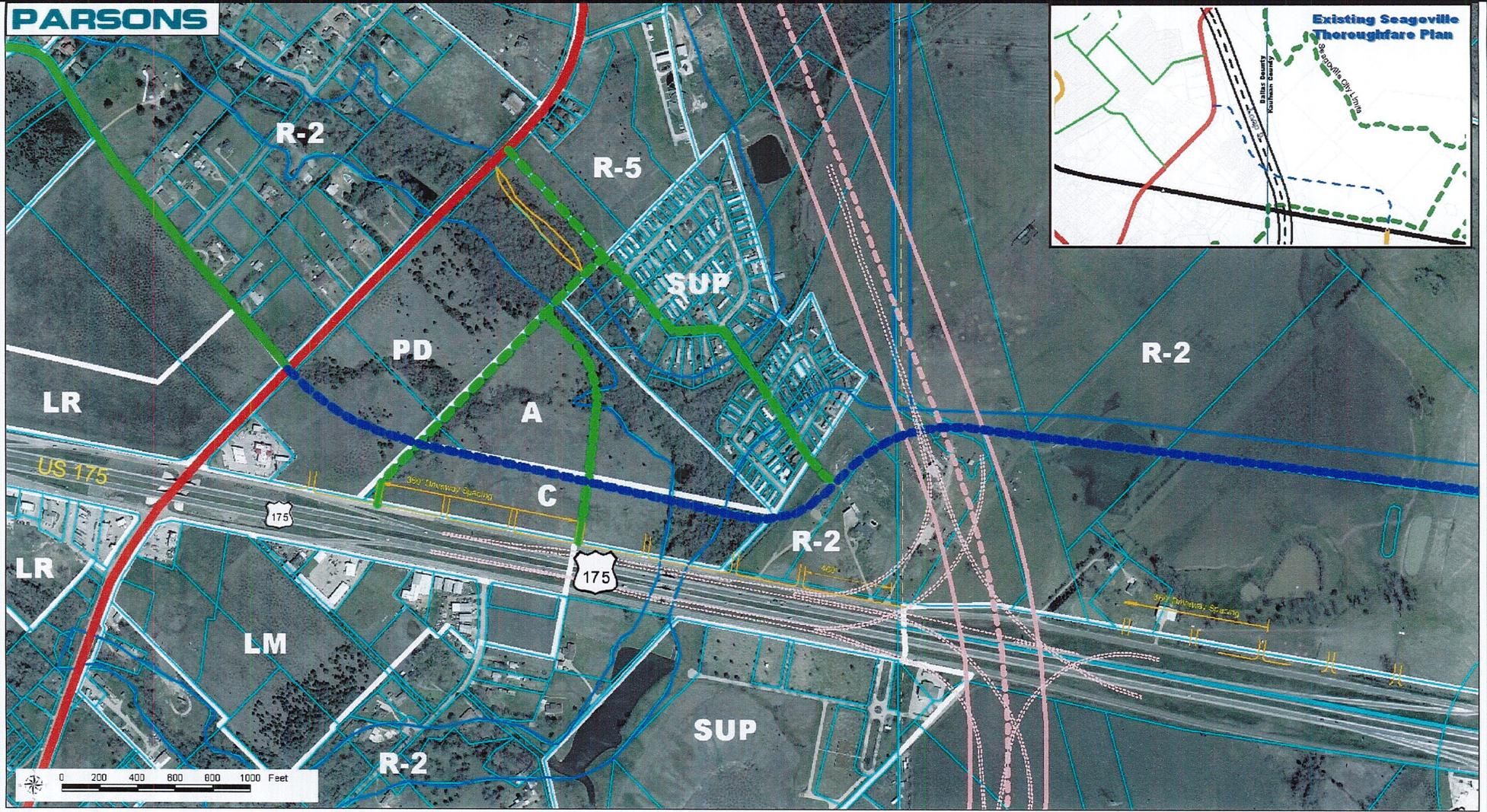


ROSA A. RIOS, CITY SECRETARY

APPROVED AS TO FORM:

ROBERT L. DILLARD III, CITY ATTORNEY
CITY OF SEAGOVILLE, TEXAS (70295)

PARSONS



Legend

- County Line
- Parcels
- Existing Zoning
- Group 1
Proposed 100' Drive
- Group 2
Proposed 150' Drive
- Group 3
Proposed 200' Drive
- Group 4
Proposed 250' Drive
- Group 5
Proposed 300' Drive
- Group 6
Proposed 350' Drive
- Group 7
Proposed 400' Drive

DRAFT
Recommended Thoroughfare Plan Amendment
Seagville, Texas
November 23, 2014

AN ORDINANCE OF THE CITY OF SEAGOVILLE, TEXAS

ORDINANCE NO. 18-06

AN ORDINANCE OF THE CITY OF SEAGOVILLE, TEXAS, AMENDING THE COMPREHENSIVE PLAN 2002 BY REPEALING SECTION 4: THE THOROUGHFARE PLAN IN ITS ENTIRETY AND REPLACING WITH A NEW SECTION 4: CITY OF SEAGOVILLE, 2006 MASTER THOROUGHFARE PLAN, WHICH IS ATTACHED HERETO AND INCORPORATED HEREIN AS EXHIBIT "A"; PROVIDING FOR PLAN ELEMENTS, INCLUDING GOAL AND OBJECTIVES, EXISTING CONDITIONS, THOROUGHFARE PLAN, THOROUGHFARE STANDARDS, AND RECOMMENDATIONS; PROVIDING FOR FIGURES, INCLUDING REGIONAL CONTEXT, EXISTING ROADWAY CONFIGURATION AND TRAFFIC CONTROL, TRAFFIC VOLUMES, EXISTING R.O.W. AND PAVEMENT TYPE, EXISTING STREET SURFACE CONDITIONS, DALLAS COUNTY TRAIL PLAN, LOOP 9 RELATIVE TO SEAGOVILLE, REGIONAL CONTEXT OF TTC AND LOOP 9 TO SEAGOVILLE, REGIONAL CONGESTION GROWTH, RELATIONSHIP BETWEEN ACCESS AND MOVEMENT, FUNCTIONAL CLASSIFICATION SYSTEM, RECOMMENDED THOROUGHFARE PLAN, ROADWAY STANDARDS, CORNER VISIBILITY TRIANGLE FOR INTERSECTION, SIGHT LINE TRIANGLE, SIGHT LINE TRIANGLE FOR DIVIDED THOROUGHFARE; PROVIDING FOR TABLES, INCLUDING TYPES OF ACCESS MANAGEMENT CONSIDERATIONS, TXDOT TRANSPORTATION IMPROVEMENT PROGRAMMING, FORECASTED POPULATION GROWTH AND EMPLOYMENT GROWTH, ROADWAY FUNCTIONAL CLASSIFICATIONS AND GENERAL GUIDELINES, ROADWAY CROSS-SECTION DESIGN CRITERIA, THOROUGHFARE DEFINITIONS, MINIMUM AND MAXIMUM DRIVEWAY WIDTHS, DRIVEWAY DESIGN REQUIREMENTS, MINIMUM DRIVEWAY STORAGE LENGTHS, CORNER VISIBILITY TRIANGLE DISTANCES, SIGHT TRIANGLE DISTANCES; PROVIDING A SAVINGS CLAUSE; PROVIDING A REPEALING CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Seagoville adopted a Comprehensive Plan in 2002 which included the Thoroughfare Plan as Section 4 of said Comprehensive Plan; and

WHEREAS, the City has contracted with Parson Corporation to conduct or cause to be conducted studies and to prepare a new Master Thoroughfare Plan (hereinafter, "MTP") for the City of Seagoville; and,

WHEREAS, the new MTP has been completed and submitted to the City for review and consideration; and

WHEREAS, after review the City Council finds the 2006 Master Thoroughfare Plan prepared by Parsons Corporation to be acceptable and that Section 4: The Thoroughfare Plan of the Comprehensive Plan 2002 should be repealed in its entirety and replaced with the new Section 4: 2006 Master Thoroughfare Plan, which is attached hereto and incorporated herein as Exhibit "A."

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SEAGOVILLE, TEXAS;

SECTION 1. That the City Council hereby repeals in its entirety the current Section 4: The Thoroughfare Plan of the Comprehensive Plan 2002 and replaces the same with a new Section 4: 2006 Master Thoroughfare Plan, which is attached hereto and incorporated herein as Exhibit "A," as the City's master thoroughfare plan.

SECTION 2 That the 2006 Thoroughfare Plan, as adopted herein, is further amended to add Loop 9 Route at a minimum of five hundred (500) feet as provided in Exhibit "B," which is attached hereto and incorporated herein.

SECTION 3 That the 2006 Thoroughfare Plan, as adopted herein is further amended to add future State Highway 175 and Loop 9 interchange as provided by the Texas Department of Transportation and the Regional Transportation Committee.

SECTION 4. That the Comprehensive Plan 2002 of the City of Seagoville, Texas, as amended, is hereby republished and shall remain in full force and effect, save and except as amended by this ordinance.

SECTION 5. That all provisions of the Ordinances of the City of Seagoville, Texas, in conflict with the provisions of this ordinance be, and the same are hereby, repealed, and all other provisions of the Ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 6. That this ordinance shall take effect immediately from and after its passage as the law and charter in such cases provide.

DULY PASSED by the City Council of the City of Seagoville, Texas, this the 7th day of September, 2006.

APPROVED:



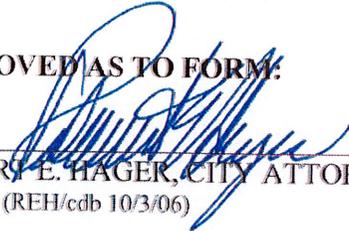
GEORGE WILLIAMS, MAYOR

ATTEST:

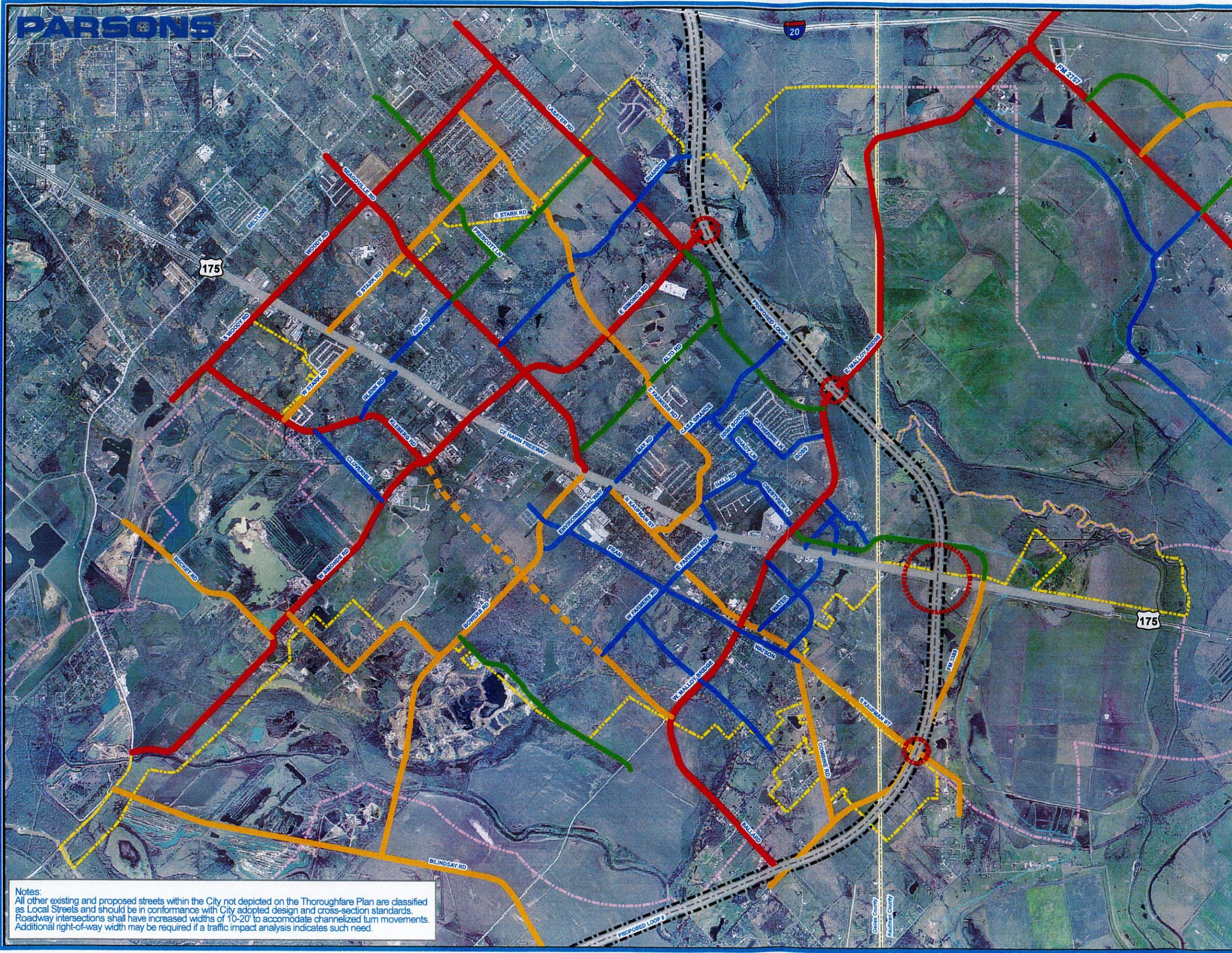


ELAINE SIMPSON, CITY SECRETARY

APPROVED AS TO FORM:



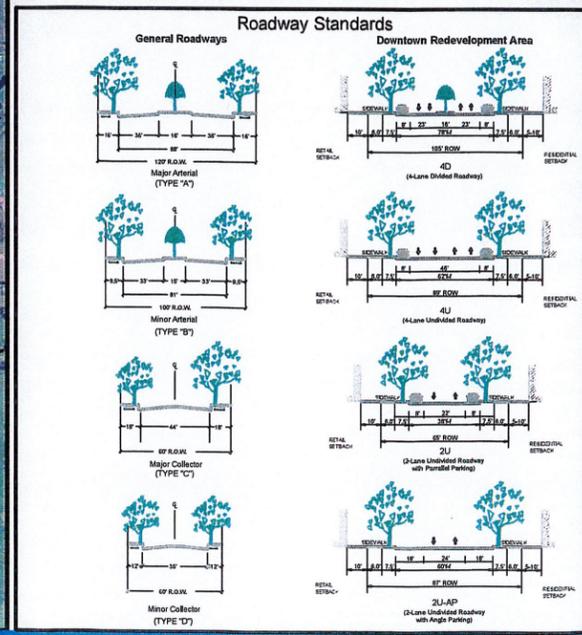
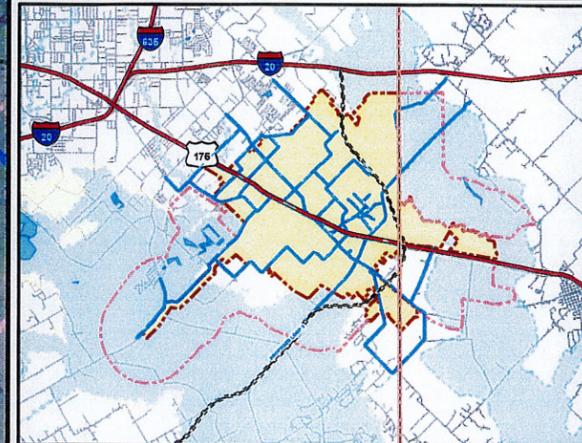
ROBERT E. HAGER, CITY ATTORNEY
(REH/cdb 10/3/06)



Legend

	Freeway		Municipal Limits
	Major Arterial		CITY LIMITS
	Major Collector		ETJ
	Minor Arterial		FEMA Floodplains
	Minor Collector		100-Year Flood Plain
	Future Interchange		500-Year Flood Plain

0 1,000 2,000 3,000 4,000 5,000 Feet

Notes:
All other existing and proposed streets within the City not depicted on the Thoroughfare Plan are classified as Local Streets and should be in conformance with City adopted design and cross-section standards. Roadway intersections shall have increased widths of 10-20' to accommodate channelized turn movements. Additional right-of-way width may be required if a traffic impact analysis indicates such need.

