MOBILITY

Chapter 3

Introduction

A city's transportation system is the lifeblood of the city, transporting people and goods throughout the community. Well designed systems that are efficient, safe, multi-modal, aesthetically pleasing and integrated into the fabric of the city promote a city's economic well being and quality of life. A poorly designed or implemented system can impact economic and social activities, hampering the city's growth.

The most successful transportation systems provide a multi-model network that ensures safe and efficient movement of people and goods while balancing environmental concerns and community needs. The City of Allen's transportation system should provide for safe and efficient movement that complements the surrounding land uses and promotes a livable environment. This means providing a transportation network that 1) handles regional and local traffic with innovative solutions and appropriate state of the art systems; and 2) provides viable transportation alternatives including public transit, and a bicycling and walking network designed on a human-scale.

Contents

Key Mobility Issues

- Allen has developed a grid-like pattern of arterial roadways in pace with development. Construction of the remaining arterial network is needed to provide connectivity and access to the remaining growth areas.
- Many workers commute to Allen for jobs, while many residents commute to work outside the community. How does the City facilitate transportation options for commuters and other non-drivers that is efficient, affordable and reduces congestion?
- As a result of continued growth and the development of regional destinations, existing roadways are experiencing a higher level of traffic and, in some cases, congestion. Several traffic signals have been added since the computerized transportation management system was programmed. Some existing streets were built prior to implementation of current access management policies. What techniques can the City use to improve mobility on the existing roadways?
- Traditional planning processes separate the design and construction of streets from design of adjacent land uses. Recent development trends include integrating these designs and the use of unique design elements that do not fit the City's standard design cross sections. How does the City balance the need to be flexible with street design while ensuring functionality and safety?
- Trails and bike routes are very popular with residents. Alternative modes of transportation support a diversity of lifestyles and improves quality of life. Continued implementation of the trails master plan, bike routes and sidewalks is needed. How does the City continue to provide alternative transportation modes and integrate them into the design and development of streets?

Summary of Goals & Objectives

1. ROADWAY CONSTRUCTION and EXPANSION. Build and/or expand roadways to improve traffic flow, connectivity and access to the community.
A. Thoroughfare Plan: Seek full implementation of the Thoroughfare Plan.
B. Roadway Funding: The City should continue to seek creative funding alternatives and partnerships for mobility projects.
C. State Controlled Roads: Coordinate roadway and signalization improvements with appropriate state agencies and obtain local control of arterial roadways where feasible.
2. ROADWAY DESIGN. Evaluate the context of roadways and consider designs which best contribute to overall quality and functionality of the built environment.
A. Context Sensitive Solutions: Link street and land use typologies to create integrated designs that provide functional multi-modal transportation and attractive places.
B. Median Enhancements: Evaluate and implement the appropriate types of median enchantments including landscaping and lighting.
C. Street Trees: Evaluate the installation of street trees in new developments where the design is appropriate and feasible.
D. Roundabouts: Evaluate the use of roundabouts or traffic circles in certain locations in the city where their design will help to increase capacity, manage speeds and reduce the severity of collisions.

3. ROADWAY MOBILITY ENHANCEMENTS. Use innovative traffic enhancements to improve the efficiency, safety and attractiveness of future and existing roadways.
A. Traffic Signalization: Maintain roadway capacity and improve traffic flow by improving signal timing and synchronization on a regular basis.
B. Access Management: Maintain roadway capacity through access management techniques including driveway spacing, deceleration lanes, median openings and cross access easements.
C. Intersection Improvements: Maintain roadway capacity and improve safety through intersection improvements.
D. Public Communication: Keep the public informed of roadway construction and improvements that are planned, upcoming and in progress.
4. BIKE and PEDESTRIAN MOBILITY. Provide safe options for walking and biking and provide better connectivity throughout the city.
A. Bicycles: Implement the Consolidated Alternative Transportation/Recreational Trail Plan.
B. Pedestrians: Implement pedestrian sidewalk and trail improvements and connectivity.
5. PUBLIC TRANSIT. Develop viable public transportation choices.
A. Job Access and Commuter Services: Utilize pilot projects to evaluate the demand for job access and commuter transit and explore feasibility of future services.
B. On-Demand Special Needs Services: Facilitate continuation and expansion of on-demand public transit services.
C. Regional Connectivity and Rail Service: Continue to evaluate opportunities for regional transportation by participating in the regional rail committee and monitoring legislative initiatives related to public transportation.

Mobility Goals

The following goals have been established to reflect the policies and priorities that will guide development and implementation of the community's transportation system as the community continues to grow and develop.

1. ROADWAY CONSTRUCTION and EXPANSION. Build and/or expand roadways to improve traffic flow, connectivity and access to the community. Although the majority of the roadways in Allen have been built, there are a number of roadways, particularly west of North Central Expressway, that need to be completed or expanded to create additional capacity and connectivity.

A. ***Thoroughfare Plan:*** **Seek full implementation of the Thoroughfare Plan.** The city, through an examination of traffic demands and current and proposed land uses, should prioritize completion of planned roadways. The city should continue to require dedication of adequate right-of-way as part of the development process, as well as construction of improvements such as deceleration lanes to improve safety.

B. ***Roadway Funding:*** **Continue to seek creative funding alternatives and partnerships for mobility projects.** Local roadway expansions may be financed through a combination of county participation, developer contributions, impact fees, capital improvement bonds and other agreements. Expansions of state and federal roadway facilities may receive funding through TxDOT and/or the Federal Highway Administration. The city should continue to seek grants and partnerships and leverage county, state and federal resources for roadway funding.

Table 3.1

5 Year Thoroughfare Improvement Priorities

Roadway	Location	Improvement	Timing
Bray Central	Exchange to Bossy Boots	widen to 4 lanes	2014
Exchange Pkwy	Greenville to Allen Heights	widen to 6 lanes	2014
Exchange Pkwy	Alma to US 75	widen to 6 lanes	2014
Ridgeview Dr.	Alma to Stacy	build 2 - 4 lanes	2015
Stacy Road	Greenville to FM 1378	widen to 4 lanes	2015
Ridgeview Dr.	Watters to US 75	build 4 lanes	2016
Ridgeview Dr.	US 75 interchange	rebuild interchange	TBD

C. ***State Controlled Roads:*** **Coordinate roadway and signalization improvements with appropriate state agencies and obtain local control of arterial roadways where feasible.** Some arterial roadways in Allen are still classified as state highways and remain under the control of TxDOT (Texas Department of Transportation). Transitioning these roadways to local control should be evaluated on a case-by-case basis. Obtaining control of these roadways can facilitate mobility enhancements, traffic control and improvements that will bring them up to local standards that match other arterial roadways in Allen. The economic benefits of development and TxDOT's policies for transitioning these roadways need to be weighed against the long-term maintenance cost of taking these roadways off of the state system. Specific roadways that should be evaluated include: FM 2531, State Highway 5, and FM 2786.

When construction occurs on state controlled roadways, the city should work with TxDOT and local businesses and property owners to minimize the potential impacts and disruptions caused by the construction process. In addition, it is in the best interest of property owners and the community to acquire adequate right-of-way at the time of development to accommodate future roadway expansions. On Central Expressway frontage roads, right-of-way dedication is important to accommodate local mobility improvements in the form of additional frontage road lanes and/or acceleration and deceleration lanes in the future with minimal impact to existing businesses.

What is Context Sensitive Design?

Building more roads and improving the efficiency of current roads improves the mobility of the roadway network in Allen. But those strategies do not consider how the roadway impacts the surrounding land uses and how the roadway acts as a part of the built environment of the City. In order to create a truly successful roadway network, those roads need to be integrated into the surrounding land uses. Their deigns need to be based on more then just the amount of cars they can carry, but how they effect the surrounding businesses, residents and local community. These roads need to be designed to reflect the needs of the local community and local residents; they need to be sensitive to the context which the roads run through.

By evaluating the context of the roadway and exploring the options for roadway designs, the City can determine which design best meets the needs of the local residents and the community at large. The example below from the ITE shows how cities can potentially evaluate alternative roadway designs.

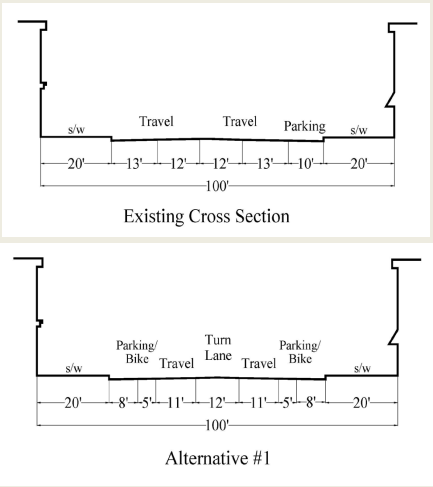


Figure 3.1

Flexibility in Highway Design, Federal Highway Administration

2. ROADWAY DESIGN. Evaluate the context of roadways and consider designs which best contribute to overall quality and functionality of the built environment. While the established standard street cross-section designs are appropriate for most projects, the city should also be flexible to modifications that improve traffic mobility or enhance the built environment.

A. ***Context Sensitive Solutions:*** **Link street and land use typologies to create integrated designs that provide functional multi-modal transportation and attractive places.** Building roadways that are context sensitive means that there is not always a one size fits all design for roadways. The design should be reflective of the context (land uses, character of development, etc.) the roadway serves and can change as the existing and planned context of the roadway changes.

When new roadways are proposed, or older roadways reconstructed, the city should evaluate the context of the roadways and consider alternatives to the standard designs of these roadways to provide a solution that best contributes to the built environment. Evaluating the context of the roadway and exploring options for roadway designs, allows the city to implement designs that best meet the needs of the community. Alternatives are typically implemented through a Planned Development zoning district, where roadway system standards should recognize the implications of land use decisions.

B. ***Median Enhancements:*** **Evaluate and implement the appropriate types of median enhancements including landscaping and lighting.** Median design and enhancements directly influence the visual attractiveness of the community and contribute to overall quality and value. The city should continue to implement median improvements, including appropriate landscaping and street lighting, as roadways are developed and improved. A comprehensive approach to median design throughout the community will implement consistent urban design themes, promote a sense of identity and address water resource and maintenance concerns.

C. ***Street Trees:*** **Evaluate the installation of street trees in new developments where the design is appropriate and feasible.** Street trees offer environmental, economic and societal benefits. However, street tree plantings can create safety issues and conflict with infrastructure if not designed and planted correctly. Landscape design must be integrated with roadway design to improve safety and functionality. The city should evaluate criteria necessary for planting of street

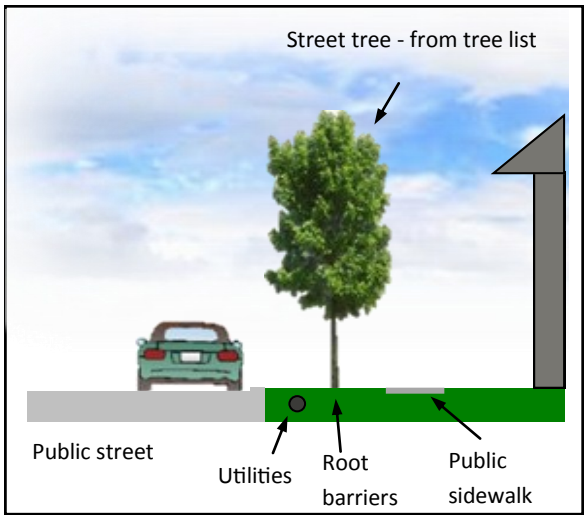


Figure 3.2 Example of street tree components

trees in selective developments, and consider installation on a case by case basis. This graphic shows some of the criteria that should be evaluated when designing and evaluating the use of street trees.

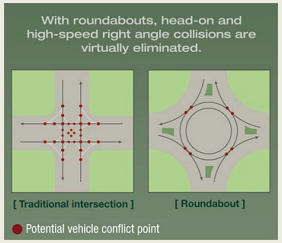
D. ***Roundabouts***: **Evaluate the use of roundabouts or traffic circles in certain locations in the city where their design will help to increase capacity, manage speeds and reduce the severity of collisions.** Roundabouts have demonstrated substantial safety and operational benefits compared to other intersection forms and controls, with especially significant reductions in fatal and injury crashes. Roundabouts can be an effective tool for managing speed and creating a transition area that moves traffic from a high-speed to a low-speed environment.

Roundabouts may be considered as an alternative for intersections on roadway projects that involve new construction or reconstruction. Roundabouts may also be considered when rehabilitating existing intersections that have been identified as needing major safety or operational improvements.

How does a Roundabout work?

The modern roundabout is a type of circular intersection defined primarily by three basic operational principles:

- Geometry that results in a low-speed environment, creating substantial safety advantages.
- Entering traffic yields to vehicles in the circulatory roadway, leading to excellent operational performance.
- Channelization at the entrance and deflection around a center island are designed to be effective in reducing conflict.



Roundabouts have 8 potential vehicle conflict points, while a traditional intersection has 32.

Figure 3.3 *Source: Federal Highway Administration*

3. ROADWAY MOBILITY ENHANCEMENTS. Use innovative traffic enhancements to improve the efficiency, safety and attractiveness of future and existing roadways. As the city continues to build out and vacant land is absorbed by infill development, roadways will experience additional trip demand and increasing traffic. Poorly designed and controlled intersections of roadways, driveways and alleys can reduce the capacity of thoroughfares. The city should evaluate and implement key strategies to improve traffic safety and alleviate congestion. Specifically, maintaining capacity is accomplished through median and marginal access control, requirements for mutual access easements, roadway design and intersection improvements.

A. ***Traffic Signalization:*** **Maintain roadway capacity and improve traffic flow by improving signal timing and synchronization on a regular basis.** Consistent traffic signal retiming efforts maintain roadway capacity by reducing delays experienced by the motorists. Improved coordination along arterial roads can help minimize the diversion of traffic to local and residential streets, improving safety and traffic conditions in subdivisions. The decreased delay at intersections reduces congestion and leads to reduced fuel consumption, reduced emissions, and improved air quality. Traffic signal retiming comparatively has a better cost to benefit ratio compared to tangible improvements. Routine evaluation of existing timing is especially important in a growing community, where the population, number of signals, and roadway network is changing. The city uses an Advanced Transportation Management System where the city has the ability to monitor and manage the traffic signals through wireless communication at a central location termed the Traffic Management Center. As the system grows and new signal are added, the traffic management system should be evaluated and synchronized on a regular basis.

How traffic signal synchronization works

Traffic signal synchronization works by calculating the arrival time for a group of vehicles at each intersection traveling at a specified speed, and then strategically timing the traffic signal to turn green just as the group of vehicles arrive at each intersection. In order for the traffic signals to be synchronized, a group of signals must all be set to run on the same cycle length (the amount of time it takes for the signal to go from green to yellow to red; and back to green again). The synchronization is managed by complex software systems.

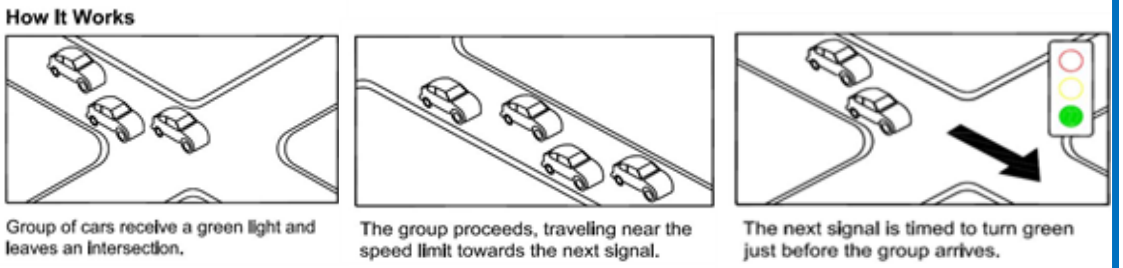


Figure 3.4

B. ***Access Management:*** **Maintain roadway capacity through access management techniques including driveway spacing, deceleration lanes, median openings and cross access easements.** Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway. The objective is to ensure roadway safety and efficient operations while providing reasonable access to the adjacent land use.

The land development process is one of the most effective tools in building an efficient and quality transportation network. The city should implement access management policies during development and redevelopment, including considering diverse innovative alternatives to standard street designs and streetscapes.

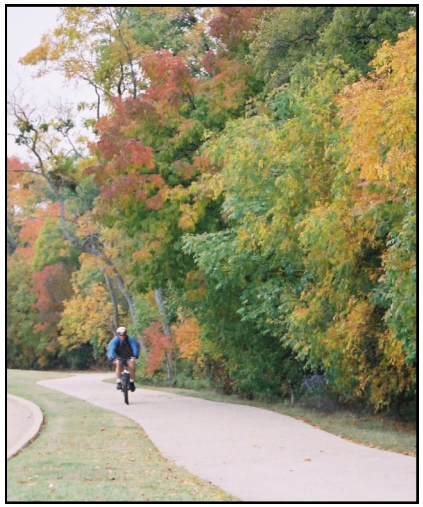
* Cross access easements connecting private developments should be required where needed to provide access.
* Deceleration lanes should be evaluated for all commercial driveways along major thoroughfares where practical and warranted.
* Right-of-way widths should be dedicated at a wider dimension at intersections to plan for and accommodate improvements including additional turn lanes.
* Dimensional design and spacing standards adopted in the *Allen Land Development Code* should continue to be implemented through the development process.

C. ***Intersection Improvements:*** **Maintain roadway capacity and improve safety through intersection improvements.** Well designed intersections improve traffic flow and safety. The city should design intersections to anticipate additional turning lanes and safety enhancements. For a mature community, intersection improvements are essential as they can impact capacity of an arterial corridor in an urban environment. Intersection improvements can include a variety of enhancements such as dedicated turning lanes and elongated storage for existing lanes, signal timing enhancement and coordination, and pedestrian friendly design features.

D. ***Public Communication:*** **Keep the public informed of roadway construction and improvements that are planned, upcoming and in progress.** Drivers are directly impacted by roadway improvement projects. Keeping the public informed about

projects helps reduce impacts on drivers and can improve safety. The city should explore and implement innovative communication strategies, including current technologies such as mobile apps, to keep the public informed.

4. BIKE and PEDESTRIAN MOBILITY. Provide safe options for walking and biking and provide better connectivity throughout the city. Alternative forms of mobility are becoming increasingly important in Allen. Current trends, such as an increasing desire for healthier lifestyles and the rising cost of energy and gasoline, help to fuel the desire for other mobility options. As the bicycle and pedestrian network expands in Allen it will provide recreational opportunities within the city, and may provide an alternative to driving for some.



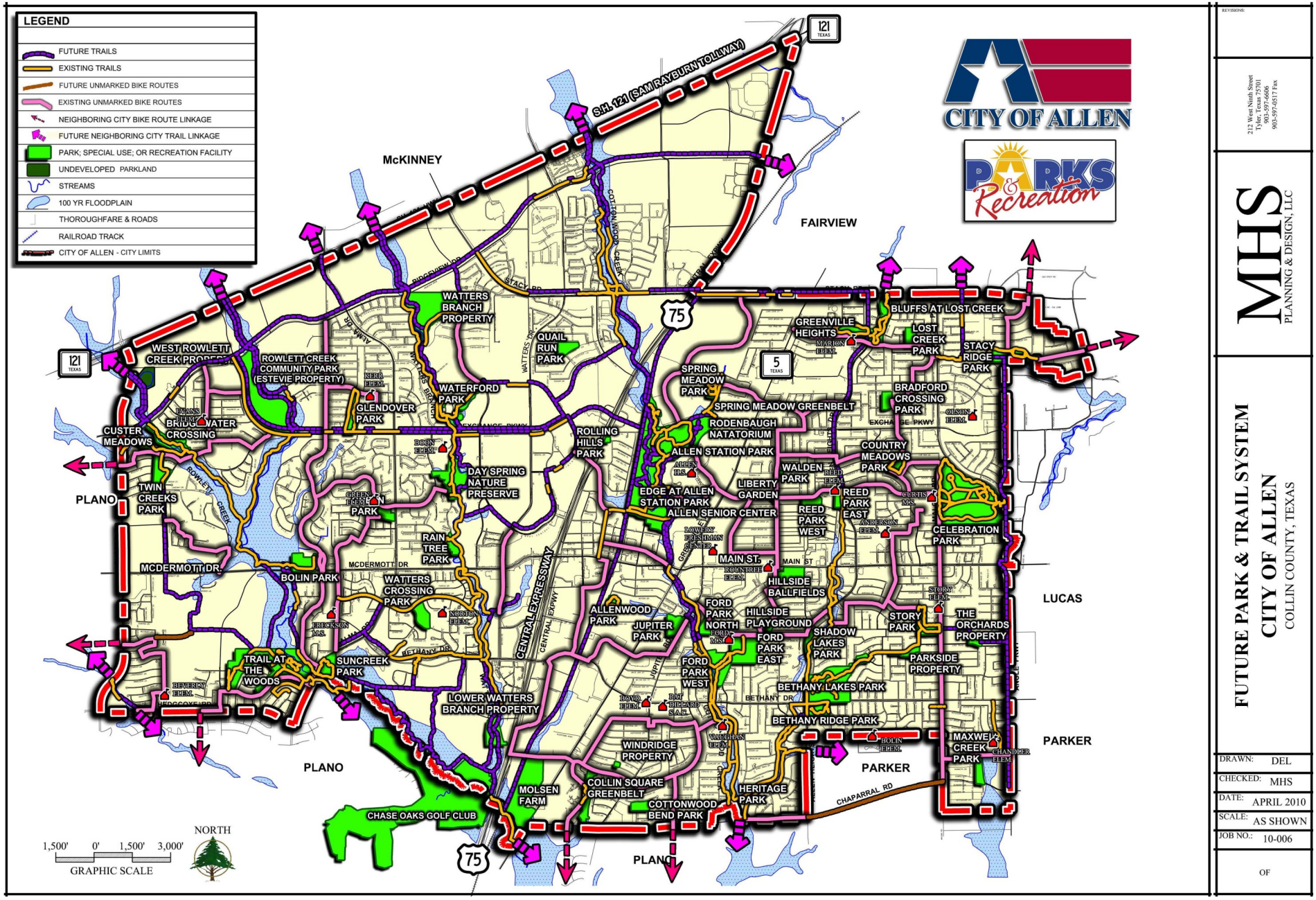
A. ***Bicycles***: **Implement the Consolidated Alternative Transportation/Recreational Trail Plan.** In 2011, the city adopted the *Parks, Recreation & Open Space Master Plan* which includes plans for trails and bike routes. The trail system includes both on-street and off-street trails. Off-street trails are considered primarily multi-purpose recreational trails, while designated on-street bicycle routes utilize the concept of "bicycle friendly" streets as an alternative to dedicated bicycle lanes. The consolidated system creates necessary links which allow the recreational trail system to also provide alternative transportation access to schools, work, and shopping. The recreational system is integrated with the regional trail system through the *Six Cities Trail Plan* and has connective links to systems in Fairview, McKinney, and Plano. The city should continue to implement the trail system and linkages through both the development process and city projects.

B. ***Pedestrians***: **Implement pedestrian sidewalk & trail improvements and connectivity.** Allen's newer neighborhoods have been constructed with sidewalks, while some older neighborhoods have intermittent sidewalks. Primary pedestrian improvement strategies include:

* Continue to build sidewalks in new developments.
* Continue to build sidewalks as part of roadway construction and improvement projects.

Trail system master plan from the 2011 Parks, Recreation and Open Space Master Plan.

Map 3.1



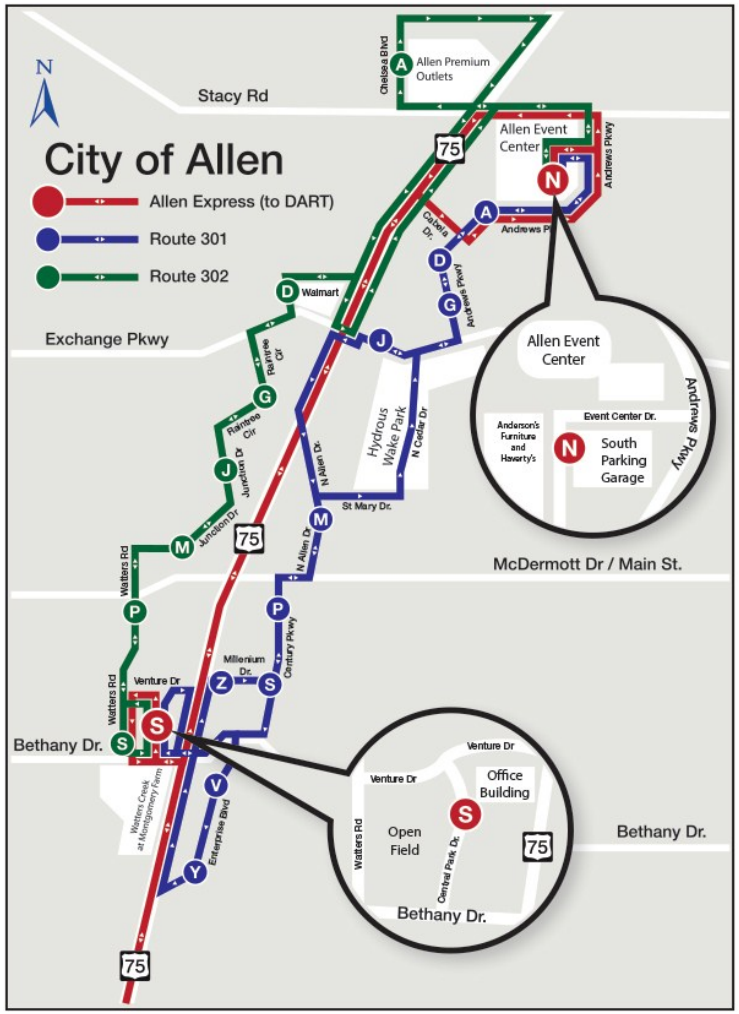
* In older areas that do not have sidewalks, construction of sidewalks should be evaluated as streets and roadways are expanded or reconstructed, or as resources become available. The city should construct sidewalks in existing neighborhoods where needed and desired by residents.
* Pedestrian access is a critical element in providing access to schools, retail and transit. Even in areas which presently have adequate sidewalks, additional requirements should be considered to ensure adequate safety and convenience. The city should improve and maintain pedestrian safety at intersections and crosswalks, especially along routes to schools and in school zones.
* Improved pedestrian circulation is considered especially important in the redevelopment of the Central Business District (CBD), along SH 5 (Greenville Avenue), and Exchange Parkway east of SH 5. Conflicts with existing overhead utilities and limited rights-of-way present a challenge to improving sidewalks in these areas.

5. **PUBLIC TRANSIT. Develop viable public transportation choices.** In 2013 the North Central Texas Council of Governments conducted a needs assessment to review existing transit service in Collin County. According to the draft report, demand for travel from north and central Collin County to Plano and Dallas County is expected to continue to grow. Job creation is also occurring throughout the county and may result in changing commuter patterns in the future, especially along major corridors in Allen, McKinney and Frisco. The primary issues identified with the current transportation system include: traffic congestion; poor quality and availability of public transit services in Collin County; limited transportation options for seniors, low-income residents and people with disabilities; planning is done exclusively for automobiles; and termination of rail service in Plano. The report concludes that there are multiple transportation alternatives that may be evaluated and pursued by the City of Allen.

A. ***On-Demand Special Needs Services:*** **Facilitate continuation and expansion of on-demand public transit services.** Currently Texoma Area Public Transit (TAPS) provides service

in Collin County including the City of Allen. TAPS operates demand responsive transportation, or on-demand door-to-door service, including paratransit service, from any origin to any destination in the service area. The service is available to all citizens on a fee-for-service basis. Coordination of this service in conjunction with expansion of local and regional transit systems should be evaluated by the city in the future.

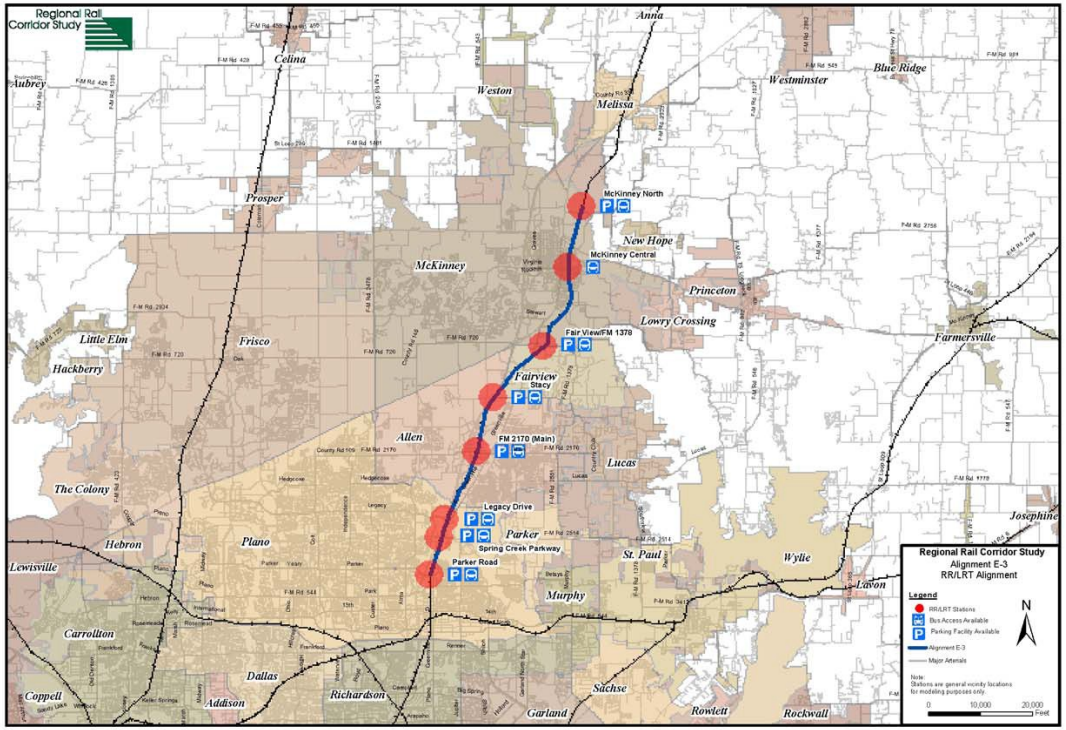
B. ***Job Access and Commuter Services:*** **Utilize pilot projects to evaluate the demand for job access and commuter transit and explore feasibility of future services**. In 2009, the City of Allen received a grant from the NCTCOG through the federal Job Access / Reverse Commute program. This grant is being used to initiate a pilot project to provide additional public transportation to the community. The proposed service includes a bus loop that connects the DART light rail system,



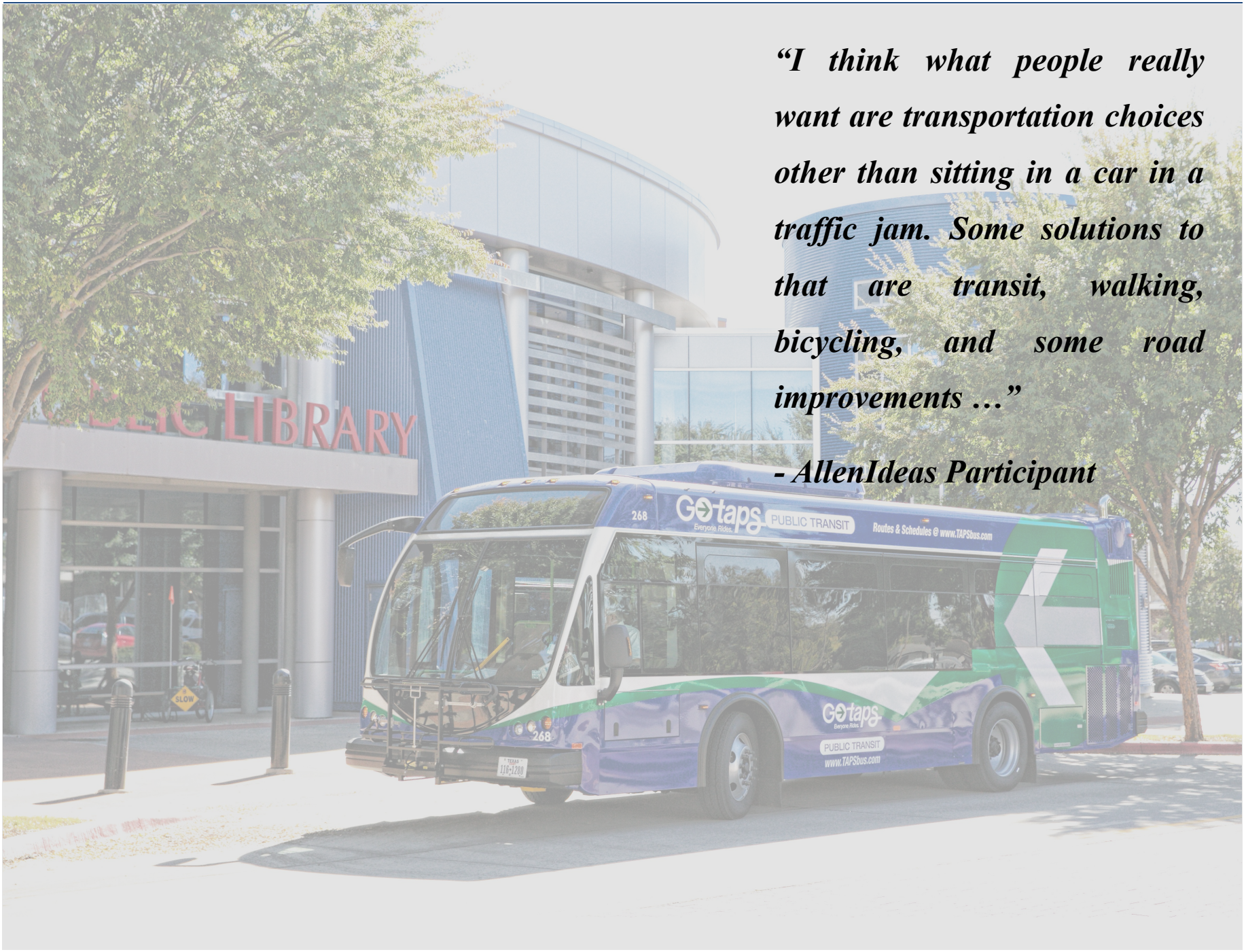
Map 3.2 In 2013 the job access / reverse commute public transit project began service. This pilot project provides bus service between the Parker Road rail station and major employment centers in Allen and will help evaluate demand for future public transit.

which currently ends at the Parker Road Station in Plano, to Allen. The service is primarily intended to provide alternative transportation for workers traveling to jobs in Allen, and includes stops at major employment and retail centers in Allen. This pilot project should be used to evaluate the demand for these services in Allen and weigh options for providing longer term services.

C. ***Regional Connectivity and Rail Service:*** **Continue to evaluate opportunities for regional transportation by participating in the regional rail committee and monitoring legislative initiatives related to public transportation.** The NCTCOG analysis indicates a current demand for regional transit. Specifically in Allen there is a high potential transit user population, and a need for connections to the regional DART system. Extension of the light rail and bus system from Plano through Allen and to McKinney has been studied and is currently shown on the NCTCOG Mobility 2025 Plan. The feasibility and funding of the extension of light rail transit to Allen is still being evaluated, but would provide an important alternative mode of transportation intended to relieve roadway congestion on regional arterials as well as addressing regional air quality challenges. Such efforts should be coordinated with other local and regional agencies.



Map 3.3 The Regional Rail Corridor Study proposes future rail station locations in Allen.

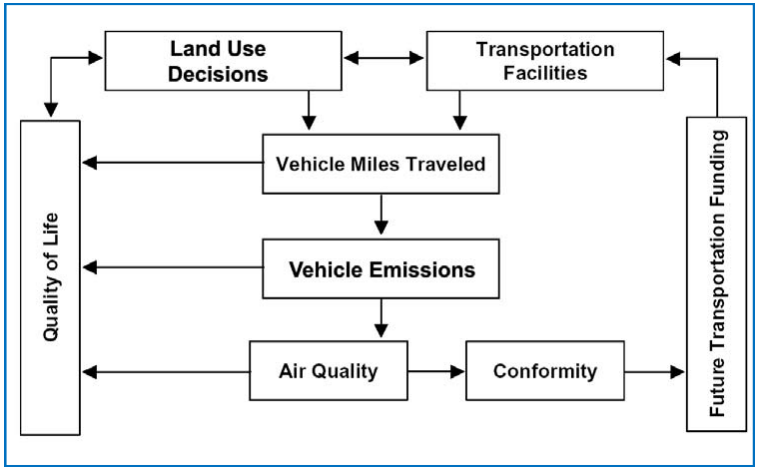


"I think what people really want are transportation choices other than sitting in a car in a traffic jam. Some solutions to that are transit, walking, bicycling, and some road improvements …"

- AllenIdeas Participant

The Transportation System

The City of Allen's system is part of a larger regional transportation system. Allen is traversed by two major highways and by local and state roads that do not stop at the city limits. The City is also served by public transit agencies that operate at a regional level. The City's system, like much of the regional system at large, is one that is dependent on automobile movement of persons and goods. As such, the current transportation system is designed to achieve the best possible mobility for automobile traffic. Roadway designs have emphasized vehicular mobility and automobile access to adjoining land uses, primarily using a functional street classification system based on traffic volume and designed speed as the determinants for design parameters.



Relationship between Land Use, Transportation, Air Quality, and Quality of Life. Source: NCTCOG, Mobility 2025—2004 Update.

Functional Street Classifications System

The City of Allen, along with the majority of the country, has adopted a functional street classification system based on the Federal Highway Administration model. The model consists of various roadways classified based

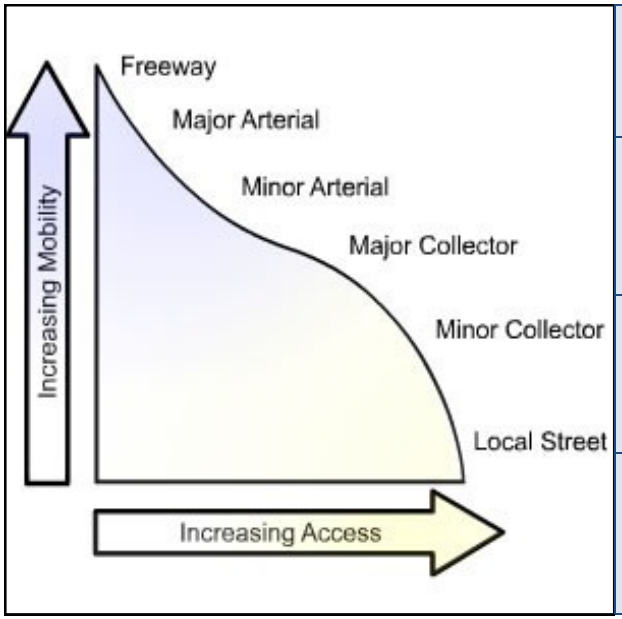


Figure 3.5

Freeway: Connects major activity centers in a metropolitan region and provides most intercity travel in the area. Designed to permit high speed while accommodating large traffic volumes. Access to property is limited.

Arterial: Streets meant for high speed long distance travel, carrying large volumes, not hindered by local access. Arterials provide the highest level of service at the greatest speed for the longest uninterrupted distance with some degree of access control.

Collector: Streets that collect traffic from local streets and feed the arterial system. Provide a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.

Local Street: Streets meant to feed other streets, carrying small volumes at low speeds. Provide access to residential land uses. Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement.

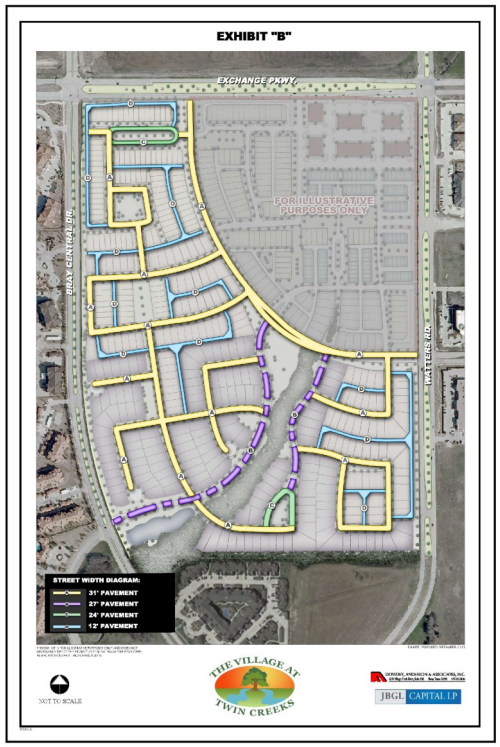
upon traffic volume, speed and access to property. The higher the volume and speed the less direct access to property those roadways have and visa versa. The traffic speed and volume verses property access model is illustrated above.

The classifications include freeways, arterials, collectors and local streets, which are further described on the following pages. Using this street classification system, Allen has built a roadway network of over 300 miles to serve the City's mobility needs. The City has two standard designs for both the arterial and collector roadways and one standard design for local roadways, which can be altered depending on the geometry of the roadway. In addition to the classification, street designs are labeled on the Thoroughfare Plan by the number of lanes, inclusion of a median and level of access.

Linking Transportation and Land Development

In Allen, as with most development in the US over the past 50 years, roadway designs emphasized vehicular mobility and automobile access to adjoining land uses, primarily using a functional street classification system based on traffic volume and designed speed as the determinants for design parameters. Traditionally, this design only considered context in terms of traffic generation, parking and access. These roadway designs were limited in their ability to respond to and support the different developments, individual activities and non-vehicular movements along it. Recently, there as been an effort to reconsider roadway designs that better integrate the roadways with its surroundings. This context-sensitivity in street design is intended to better address the link between transportation and land use.

The most successful roadways incorporate designs that reflect the desires of local residents to emphasize character, while still providing a high degree of multi-model connectivity that maximizes vehicle capacity along the roadway. Design professionals are reconsidering roadway designs to better integrate the roadways with its surroundings. The City of Allen's transportation system should provide for the flexibility to support designs that provide safe and efficient movement along a roadway network and that complements the surrounding land uses and promotes a livable environment. Through the development process there are opportunities to modify standard cross-section designs and create unique streets suited to each situation.



Through planned development zoning, context specific street standards can be implemented.

Street Cross-Sections

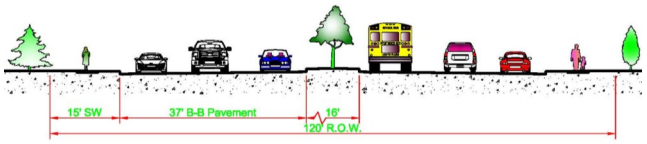
Arterials

Functionality - Arterials are utilized as relatively high-speed surface streets capable of moving large volumes of traffic across an urbanized area and to provide access to freeways and to lower street classifications.

Design - Arterials serve a citywide function and are therefore designed with vehicular mobility as a high property. As such, access management and synchronized signal timing are both important along arterials. Arterials are 4 to 6 lanes to accommodate vehicular mobility concerns and though vehicular mobility is a higher priority, pedestrians and cyclists are still provided for in the design. In fact, due to the high speeds and large traffic volumes, the need for safe environments for pedestrians and cyclists are particularly important.

Context - Residential development along arterials is not frequently oriented to the road and is often separated by a screening wall composed of masonry, wrought iron or living materials. Commercial, office and industrial developments are generally oriented to the roadway but in most cases large parking lots buffer the road from the buildings. These two aspects of urban design have created arterials which fluctuate between a walled in corridor and a more open space.

Principal Arterial

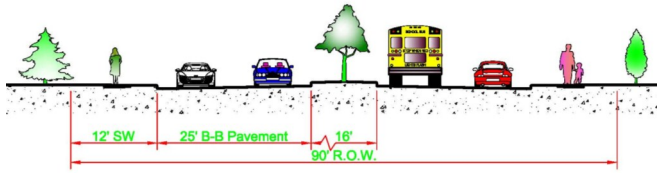


TYPE P6D PAVEMENT

Principal Arterial - McDermott west of US 75

Arterials	
Number of Lanes	4 to 6
Lane Widths	12’
Designed Speeds	35-45 MPH
Sidewalks Width	5’
Streetscape Width	9’ - 15.5’
ROW	90’ - 130’
Median Width	17’ - 25’
Bicycle Facilities	Limited On-Street

Minor Arterial



M4D PAVEMENT

Minor Arterial - Allen Heights Drive

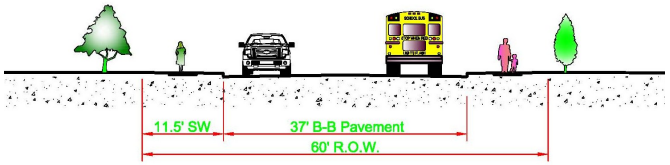
Collectors

Functionality - Collectors are intended to balance mobility and land access throughout residential, commercial and industrial areas of the city. They typically handle medium volumes of traffic at speeds that range between 30 and 45 miles per hour.

Design - Collectors are 2 to 4 lanes and may include on-street parking. Because they balance land access and mobility, collectors serve an important function in providing transportation choices between different modes of transportation. They are designed to accommodate bicycle and pedestrian activity better than arterials while still providing a high level of vehicular mobility.

Context - Commercial and industrial developments are often oriented towards the roadways and the buildings are generally located closer to the street then similar buildings located on arterials. This, combined with on-street parking and pedestrian facilities, yields a street that is more walkable and bikeable than an arterial. The addition of street trees, street furniture and improved building orientation could further increase the walkability and bikeability. Single family residential developments may access residential collectors, but typically are prevented from fronting other collectors. When this occurs, potential conflicts arise between mobility and resident conveniences such as parking and pedestrian recreation.

Residential Collector

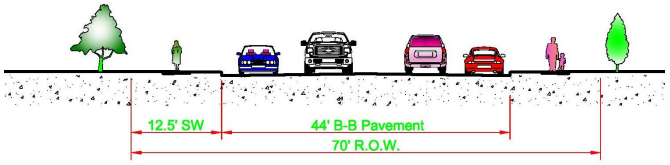


C2UR (37')

Residential Collector - Twin Creek Drive

Collectors	
Number of Lanes	2 to 4
Lane Widths	11’ - 12’
Designed Speeds	30 - 45
Sidewalks Width	4’
Streetscape width	11’ - 13’
ROW	60’ - 90’
Median Width	10’- 14’
Bicycle Facilities	Shared Lanes On-Street

Commercial Collector



C2UC (44')

Commercial Collector - Prestige Circle

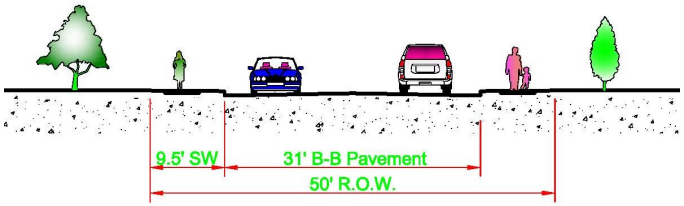
Local Streets

Functionality - Local streets provide for direct access to land. Vehicle mobility typically involves trips at low speed to and from collector streets. Traffic volumes on local streets rarely exceeds 5,000 vehicles per day and pedestrian and bicycle traffic is expected.

Design -The design of local streets is influenced less by traffic volumes and more by providing local access and community livability. Local streets are designed to accommodate vehicle traffic and to provide pedestrian and bicyclist use. They are generally 2 lanes with on street parking, sidewalks and occasionally bicycle amenities.

Context - Because local streets provide direct access to land, the surrounding land uses interact more with the roadway than any other street classification. Many times retail, office or industrial uses open directly onto the street without any substantial barriers. Homes on local streets have front doors that open on to the street with various front yards and streetscapes.

Typical Local Street



LOCAL (31')

Local Streets	
Number of Lanes	2
Lane Widths	11’ - 12’
Designed Speeds	20 - 30 MPH
Sidewalks Width	4’
Streetscape width	9.5’
ROW	50’
Median Width	N/A
Bicycle Facilities	Shared lanes

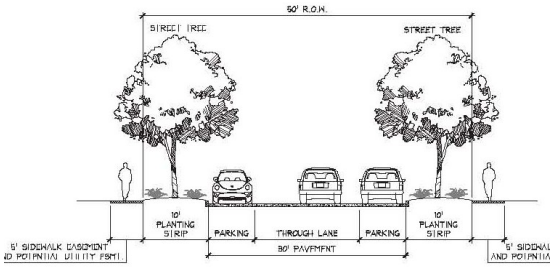
Unique Streets

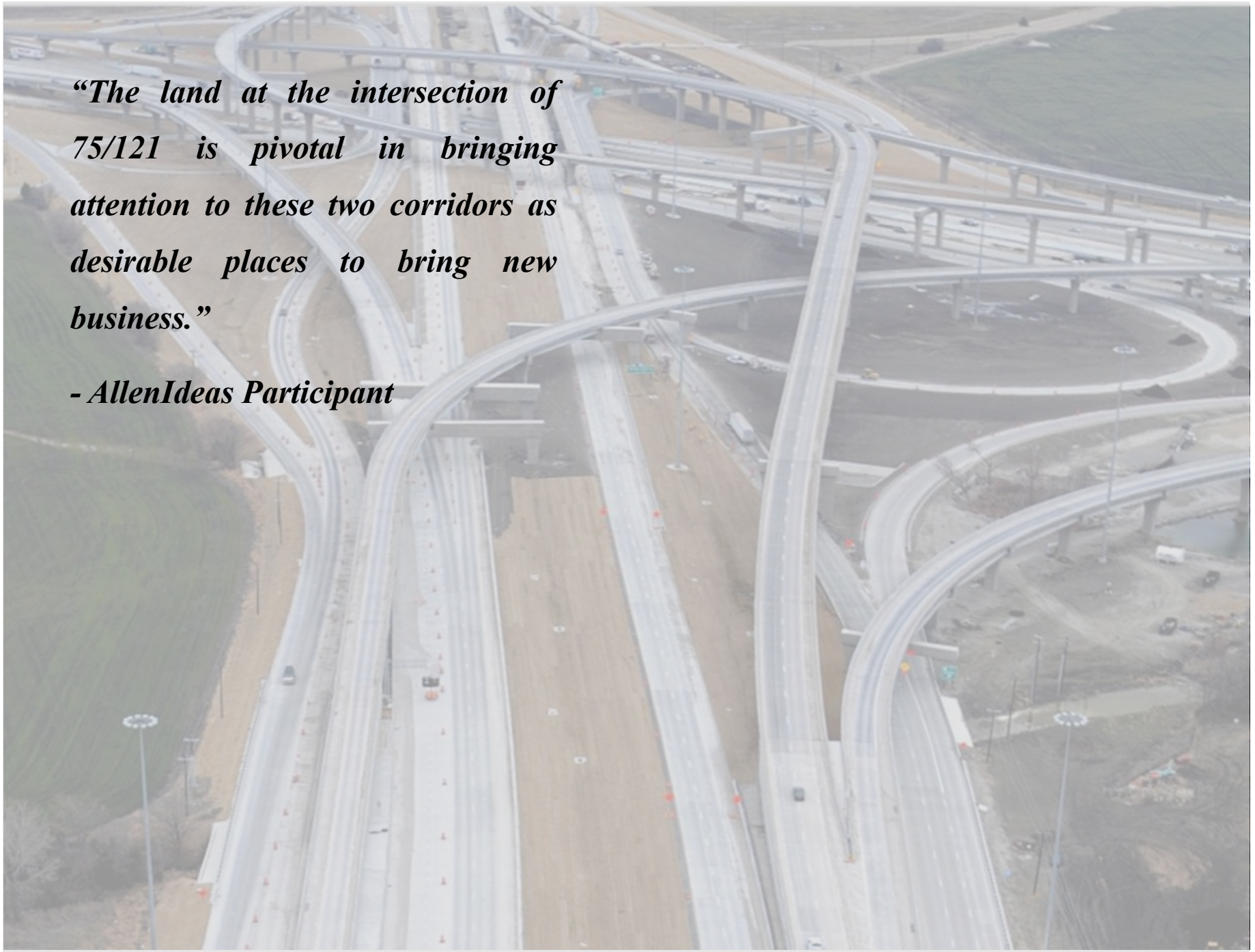
Through the development and design process, modifications to the standard street cross-sections may be appropriate to improve the integration and functionality of the street. Unique streets are alternatives to the typical street typologies for the standard classification system of arterials, collectors and local streets. They may differ in their function, design standards and context from the standard streets in Allen. Variations should be evaluated where appropriate to better integrate with surrounding land uses. As these streets are unique there are no prescribed standards for design dimensions. Instead those aspects are determined by the specific needs and goals of the situation. Unique street designs should be evaluated on a case-by-case basis to ensure safety, functionality and appropriateness.

Main Street - Angled on-street parking is utilized to provide parking in an existing urban environment and to preserve the historic character of the area.

Hamilton Hills - On-street residential parking with "bump outs" provides parking with less travel lane conflict.

PD 108 - Conceptual residential streets with street trees provide alternative pedestrian friendly streetscapes.





"The land at the intersection of 75/121 is pivotal in bringing attention to these two corridors as desirable places to bring new business."

- AllenIdeas Participant

The Thoroughfare Plan

Map 3.4