City of Sachse, Texas

Meeting Agenda

City Council Workshop

Monday, February 15, 2016 | **6:30 PM** | **Council Chambers**

The Mayor and Sachse City Council request that all cell phones and pagers be turned off or set to vibrate. Members of the audience are requested to step outside the Council Chambers to respond to a page or to conduct a phone conversation.

The City Council of the City of Sachse will hold a Workshop Session on Monday, February 15, 2016, at 6:30 p.m. in the Council Chambers at Sachse City Hall, 3815 Sachse Road, Building B, Sachse, Texas to discuss the following items of business:

1. Discussion Items.

16-3232 A presentation by and discussion with Parsons Brinckerhoff Consultants regarding a Highest and Best Use study for industrial zoned property located at SH 78 and Ranch Road.

Attachments: Feasibility Report - 2

2. Discuss any City Council meeting agenda items.

Please note: These items are for discussion purposes only and no Council action will be taken. The workshop session is for City Council and staff discussion. Citizen input is not permitted on this agenda.

3. Adjournment.

The City of Sachse reserves the right to reconvene, recess or realign the regular session or called Executive Session or order of business at any time prior to adjournment.

As authorized by Section 551.072(2) of the Texas Government Code, this meeting may be convened into closed Executive Session at any time during the City Council workshop or regular meeting for the purpose of seeking confidential legal advice from the City Attorney on any workshop or regular meeting agenda item listed herein.

Posted: February 12, 2016; 5:00 p.m.

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Michelle Lewis Sirianni, City Secretary

If you plan to attend this public meeting and you have a disability that requires special arrangements, please contact Michelle Lewis Sirianni, City Secretary at (972) 495-1212, 48 hours prior to the scheduled meeting date.

City of Sachse, Texas

Legislation Details (With Text)

File #:	16-3232	**Version:** 1	**Name:**	Parsons Brinckerhoff Presentation	
Type:	Discussion Item		**Status:**	Agenda Ready	
File created:	2/11/2016		**In control:**	City Council	
On agenda:	2/15/2016		**Final action:**		
Title:	A presentation by and discussion with Parsons Brinckerhoff Consultants regarding a Highest and Best Use study for industrial zoned property located at SH 78 and Ranch Road.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Feasibility Report - 2				

Date	Ver.	Action By	Action	Result

Title
A presentation by and discussion with Parsons Brinckerhoff Consultants regarding a Highest and Best Use study for industrial zoned property located at SH 78 and Ranch Road.

Background
The Sachse Economic Development Corporation (SEDC) entered into a contract with Parsons Brinckerhoff for the Highest and Best Use Plan for industrial zoned property located at SH 78 and Ranch Road to assess the long range opportunities of the property.

The Sachse Economic Development Corporation Board unanimously approved the Highest and Best Use Study for industrial zoned property located at SH 78 and Ranch Road and made a recommendation to move forward to the City Council for review and discussion.

Policy Considerations
Parsons Brinckerhoff will present their findings of the Highest and Best Use study and present three potential options for consideration.

Budgetary Considerations
To date, only the cost of consulting services with Parsons Brinckerhoff paid for by the Sachse Economic Development Corporation.

Staff Recommendations
Discussion only.

Development Feasibility Study

Ranch Road & State Highway 78

September 2015

Sachse, Texas

WSP | PARSONS BRINCKERHOFF

SACHSE

This plan has been prepared by WSP | Parsons Brinckerhoff for The Sachse Economic Development Corporation.

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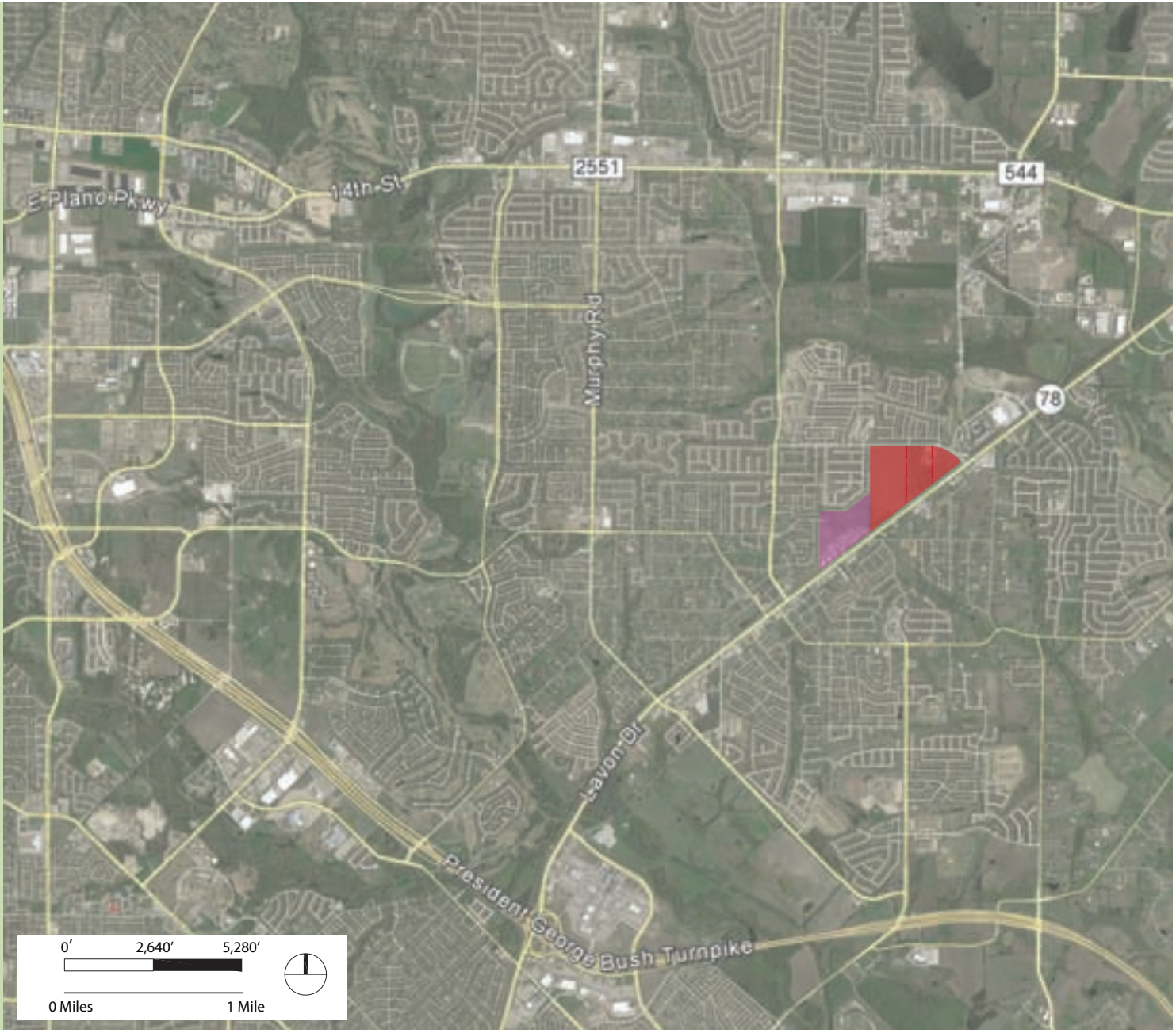
- Sachse Economic Development Corporation
- City of Sachse
- WSP | Parsons Brinckerhoff

Table of Contents

Introduction

Figure 1
Study Context



Introduction

The City of Sachse has been experiencing high population and development growth in recent decades. Much of the recent development has expanded single family residential housing throughout the city leaving few large parcels available for commercial, employment and community use. One of the last large-scale development areas is strategically located adjacent to State Highway 78 (SH 78), approximately two and a half miles northeast of the President George Bush Turnpike (PGBT). See Figure 1.

PROJECT PURPOSE & OBJECTIVES

The Sachse Economic Development Corporation (SEDC) and local landowners desire to attract private investment to this area that capitalizes on the development area size, and its adjacency to regional transportation. The purpose of this study is to assess the feasibility of developing the study area, and to determine a highest and best use land use plan.

The WSP|Parsons Brinckerhoff team was retained by the Sachse Economic Development Corporation to craft a market-based development vision that represents the highest and best use opportunities for near-term private development within the study area. More specific objectives are included below.

- Determine significant barriers to attracting private investment
- Understand and integrate landowner and stakeholder interests
- Prepare highest and best use development framework
- Quantify the potential value creation for study area

STUDY AREA

The primary study area includes an 86-acre assemblage anchored by Ranch Road and State Highway 78, and includes an existing Montessori School. A secondary study area has also been determined that is contiguous to the primary area and located along its southwest edge. This area contains approximately 42-acres, and includes a 16-acre industrial development. See Figure 2.

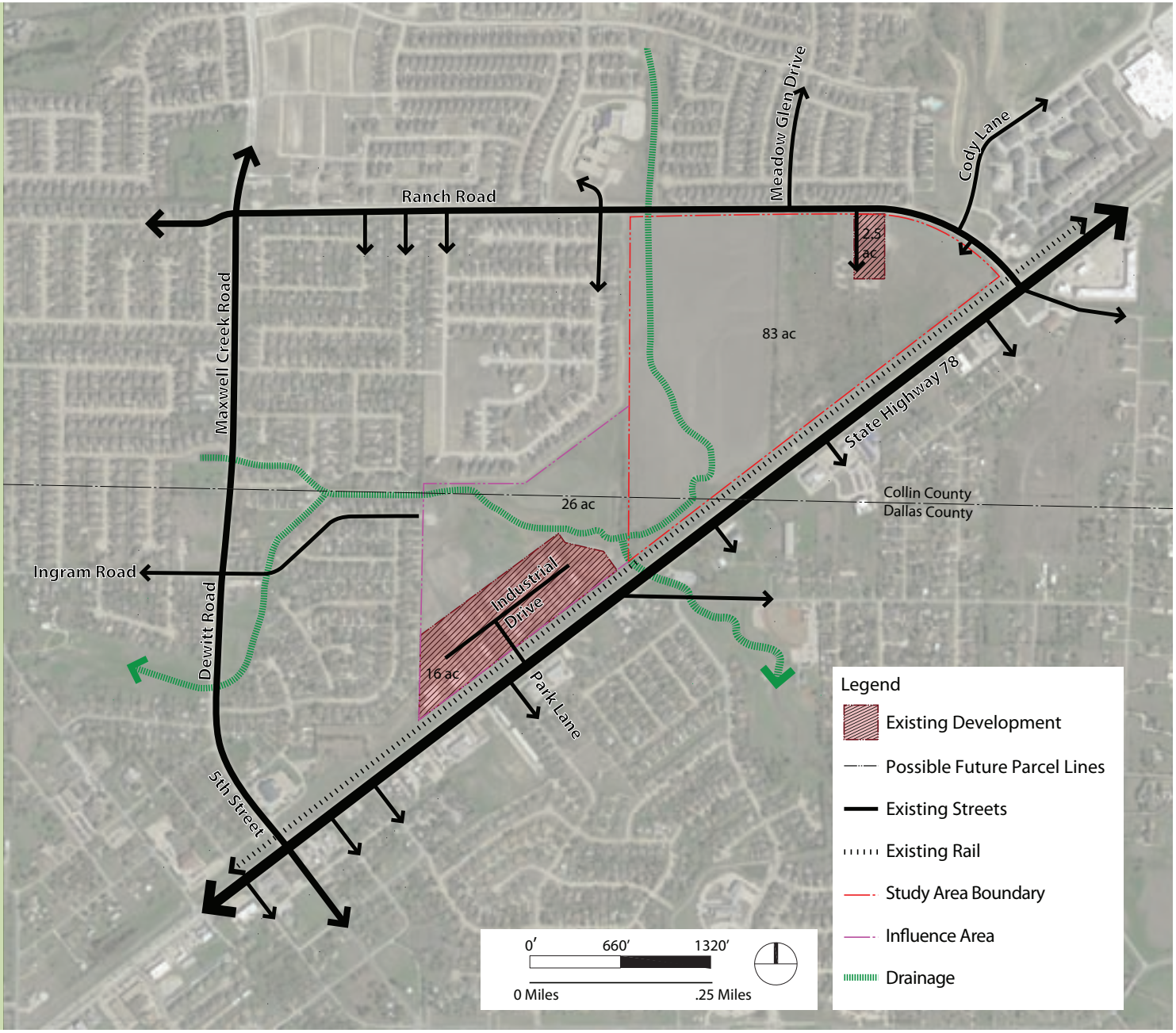
PROCESS

The study team worked with the Sachse Economic Development Corporation, agency stakeholders, landowners, developers, and private sector interests to understand the opportunities and challenges to achieve a highest and best use development. For the purposes of this study, “highest and best use” is determined by the following criteria:

- Ability to create high quality jobs, including retail and professional services.
- Ability to attract current market demand.
- Ability to produce a comparatively higher overall development value and higher net revenue.
- Ability to catalyze other desirable development surrounding the study area.

Based on the analysis and outreach, the team crafted three (3) development sketch plans and programs that leverage public improvements, are market-based, and provide high value for the available land. Each of the three (3) sketch plans was used to estimate the value new investment that would occur during build out, and a preferred plan was identified.

Figure 2
Study Area



Context

The following section presents the site analyses in the context of general conditions for development within Sachse, and includes opportunities to leverage and challenges to address.

OPPORTUNITIES TO LEVERAGE

The study area is well-positioned for private investment based on a wide range of opportunities that can be further leveraged to capture growth in desired development patterns. Some of the opportunities are due to regional growth of the area and are broad in nature. Other opportunities are study area specific, while others are opportunities that will take additional effort to leverage for highest and best use.

AREA IN TRANSITION

The growth and build out of the residential neighborhoods surrounding the study area is a clear illustration of how this part of Sachse is in transition. New development in Garland at Firewheel has been successful, and the recent development of Wal-Mart just northeast of the study area also demonstrates that market demand for services is increasing.

STRONG MARKET DEMAND

Strong market demand exists for a range of uses including professional services and residential. While a market study was not completed as part of this study, a market study was recently completed for a property within the city of Sachse approximately 1 mile west of the study area.

RESIDENTIAL

While there is a lot of single family residential surrounding the study, there also exists higher density residential just north of the study area along State Highway 78. The developer of that project has interest to build higher density multifamily housing in the study area. This demonstrates additional demand for higher density residential at this location.

PROFESSIONAL SERVICES

New employment corridors are being established along the President George Bush Turnpike, approximately two and a half miles away, which demonstrates the need for professional services in this area. Additionally, while new residential units have been developed around the study area, few permits and applications have been submitted for new businesses. However, the additional influx of families does create demand for professional services — including medical and some office, and other community services such as beauty, pet care, legal, education and daycare, as well as many others.

RETAIL

There exists some limited demand for specific retail services, such as restaurants or a “general store” type user, such as a Walgreen’s or other type of store that provides integrated retail and convenience services. One issue regarding retail is the recently completed Wal-Mart to the north and Firewheel to the west, which contains a Target store. Between the Target and the Wal-Mart much of the larger format retail demand has been satisfied, with smaller retail formats already existing in strip malls type development patterns along State Highway 78. Due to the highway visibility of the study area, there is some demand for retail; however, it would be more successful if developed as part of a broader vision for the study area.

VACANT LAND

The study area offers one of the largest contiguous tracts of undeveloped land in Sachse. A variety of parcel sizes present an opportunity to configure growth in phases. The natural rolling topography of the landscape provides an opportunity to frame views, focus entry points and organize development into compact patterns based on topographical variations. Creeks and open spaces extend through the project area and could be captured as an asset for existing and future development.

SIZE AND CONFIGURATION OF PARCELS

The entire study area represents approximately 125 acres that could be developed through a master plan. The study area includes a mix of large and small parcels ranging from approximately 50 acres in size, down to a few acres, as shown in Figure Z. While the larger sized parcels have good access to Ranch Road and could be developed independent of the smaller parcels, a more integrated development pattern and internal road system could be developed through a coordinated plan.

INFRASTRUCTURE IMPROVEMENTS

Ranch Road is completing a widening sufficient to handle existing and future traffic volumes and provide improved ingress and egress to the study area and its connection to Maxwell Creek Road. This improvement also includes water and sewer improvements that make the site “development ready” from a utility services perspective. Existing and potential access locations are shown in Figure Z, which indentifies primary access from Ranch Road with limited access to and from State Highway 78 due the existing railroad.

ZONING

The study is zoned for industrial uses, including I-1 (Restricted Manufacturing/Warehousing), I-2 (General Industrial District), and SP (Special Use Permits) classifications. With one of the anticipated outcomes of this study to recommend a new zoning classification, it is anticipated that rezoning this area is an opportunity and could be accomplished in a timely manner.

LAND USE

Surrounding the study area exists primarily single family housing, with some multifamily on the north corner of Ranch Road and State Highway 78. Witt Elementary School is located of Ranch Road and does present automobile congestion issues in the morning and afternoon, consistent with school class times. A range of strip development commercial services are located along the south side of State Highway 78. Within the study area, a two and a half acre Montessori School is located off Ranch Road, and existing industrial uses are accessed from Park Lane, at the only at grade rail crossing from the highway.

CHALLENGES TO ADDRESS

In addition to opportunities to leverage, there exist conditions in the study area that form challenges that need to be addressed. The challenges in the area that could detract investment today are influenced by limited access to State Highway 78, the character of surrounding non-residential development, market competition from nearby areas, storm water drainage, and fragmented ownership.

CONNECTIVITY AND NETWORK

While there is good access to the study area from Ranch Road, there is not a defined street network within the study area which limits the ability to develop and the timing to develop. In the case of an internal roadway network, the project area is not development ready. This is an opportunity to define a desired development pattern that includes bicycle and pedestrian considerations, managed parking, and walkable block sizes.

ACCESS ACROSS RAIL

There exists an at-grade rail crossing at Park Lane that provides access to Industrial Drive and the industrial-based uses in that area. Additional at-grade crossings are desirable to reduce the number of trips that will use Ranch Road for access. While not currently in service, there is a curb cut that provided site access off of State Highway 78 across from a local business, Steak Kounty. Reestablishing access to the site from this location would greatly improve site circulation and access to adjacent roads and reduce future congestion on Ranch Road. Additionally, gaining access at this location will likely increase the development potential and density on this site.

Another opportunity to obtain broader site access is to evaluate the opportunity to relocate Park Lane to the north. Industrial Drive could be extended to connect to a relocated Park Lane. But moving the access location to the north would provide a more centralized size access for the entire study area.

CHARACTER OF EXISTING DEVELOPMENT

The character of the State Highway 78 corridor is lacking in a cohesive identity and sense of place. Instead of a destination, the area is often overlooked as a pass-through to reach areas outside of the corridor. Integrated development standards and aesthetic improvements could lead to a unique place in the region and improve the character of the study area.

STRIP DEVELOPMENT PATTERN:

The existing State Highway 78 corridor development pattern is primarily automobile-oriented with linear strips of uses. Wide building setbacks and front loaded surface parking along the highway discourages a well-defined streetscape. The auto-oriented focus limits multimodal connectivity and detracts from a pedestrian-scale environment. Businesses benefit from direct corridor access, but have little relationship with each other or with surrounding development.

MARKET COMPETITION

As noted in the previous section “opportunities to leverage”, the retail market for the study area is likely to be limited due to Firewheel and Wal-Mart. The study area currently lacks competitive advantage for retailers to locate here. New development within the study area will need to be high-quality to compete against larger and more established centers.

TOPOGRAPHY/DRAINAGE

A portion of the expanded study area is located in a drainage area. Development in this area will require mitigation that could include an open channel system, or relocating the drainage area into culvert in an effort to open the site for more flexible development. For the north-south drainage area in the primary study area, a sensitive development plan could accommodate drainage areas where appropriate for improved open space.

The secondary study area includes twenty-six (26) acres of undeveloped land that is impacted by an east-west drainage area that continues under the railroad and drains to the southeast. While this area could be developed as single family homes, a higher and better use, including commercial uses should be considered.

The idea of extending Industrial Drive was identifies as an “opportunity to leverage”; however the challenge will be to create access across the drainage channel, which is a challenge due to the costs of a culvert or bridge. While this will not be an issue for early phases of development, it could impact the velocity and type of development that occurs in this secondary study area. Further analysis may be required to understand better the possible barriers to development that could occur due to the drainage.

FRAGMENTED OWNERSHIP

The primary study area is comprised of eleven (11) parcels with eight (8) landowners. During stakeholder meetings, many of the landowners were interested to participate in a planned development where the eleven parcels could either be assembled into a large parcel, purchased by majority ownership or some other assemblage strategy. It is possible that the City could assist in the assemblage of this land if public benefits outweigh any impacts.

PLANNING AND DEVELOPMENT STRATEGIES

A series of strategies can be used to create value over time and maximize the value of the study area. The following overall planning strategies serve to further guide the character and quality of development in the corridor and should be utilized into all new development. There is an opportunity to develop this area over time based on a master development plan that accommodates market-based uses during logical market cycles, rather than building the area out with a single use.

COMPACT DEVELOPMENT PATTERN

For the study area to be a successful destination it needs to have places where people want to be. The overall development pattern should be more compact to sufficiently create an environment that can support walkability, higher densities, and higher utilization of infrastructure with increased municipal revenues. Compact development refers to a design intent that locates uses on smaller lots and within walking distance to pedestrian-oriented commercial and office destinations. This pattern of development can help to lower infrastructure costs by making roadways narrower and utilities shorter. It can also help preserve valuable open spaces, limit sprawl and increase neighborhood cohesiveness and public health through encouraging walking/bicycling and social interaction.

STORMWATER MANAGEMENT

There are two core issues to address when handling stormwater: 1) volume and timing of runoff (detention and conveyance) and 2) contaminants carried in the water (water quality). Addressing the core issues of stormwater throughout its cycle in an urban setting maximizes sustainable regeneration of the resource and minimizes the impact to the built environment and urban design of place. Techniques must be utilized at the source point for cleaning the water as well as using land-based solutions to handle stormwater detention and conveyance.

Detention ponds, bioswales, infiltration trenches, and sustainable pavements (such as pervious) should be utilized throughout the study area and integrated into the built environment, public rights-of-way, and within the open space system. Usage of hybrid subsurface stormwater infrastructure systems can convey loads unable to be addressed though low-impact development. These management elements should be designed as amenities for passive and active uses, while reducing the need for more expensive solutions.

LOW-IMPACT DEVELOPMENT

Low-impact development practices are encouraged to be integrated into all new development. When these practices are implemented on a neighborhood or district level the impact to the environment and public infrastructure can be greatly reduced. Low Impact Development (LID) offers several techniques including stormwater harvest, infiltration to restore the natural recharge of groundwater, biofiltration or bioorientation (e.g.,rain gardens) to store and treat runoff and release it at a controlled rate to reduce impact on streams and wetland treatments. This stores and controls runoff rates and provides habitat in urban areas. Curb modifications for at-source retention are recommended to collect run-off water into bioswales, and provide at source water quality. Permeable pavements should be used to enhance streetscapes and contribute to the character while serving as LID. Green roofs are another potential solution. These applications largely address water quality at the point source prior to connecting into the larger system for conveyance and detention. All techniques should be evaluated to understand which best address the climate and geographic conditions of the site.

Figure 3
Framework for Successive Development

FRAMEWORK FOR SUCCESSIVE DEVELOPMENT

Broadway Marketplace a 42-acre place in Denver, Colorado is located at Broadway and Alameda Avenue. It was redeveloped through the leadership of the Denver Urban Renewal Authority (DURA) working with two development groups. DURA provided relocation assistance as part of the acquisition process. In 1992 DURA selected a development group to redevelop the site.

In 1993 DURA provided $16.7 million in tax-increment financing (TIF) funds towards to $44 million redevelopment into a 420,000 retail center. A management group acquired the property in 2007 and the city approved a General Development Plan in 2009 for the site that allows increased densities, greater utilization of nearby transit and planning for the third generation of development for this site.

The aerial images show how a street grid was introduced and is currently used for surface parking. As land values increase, and vision for the area will be incrementally implemented.

www.renewdenver.org/redevelopment/dura-redevelopment-projects/denver-county/broadway-marketplace.html

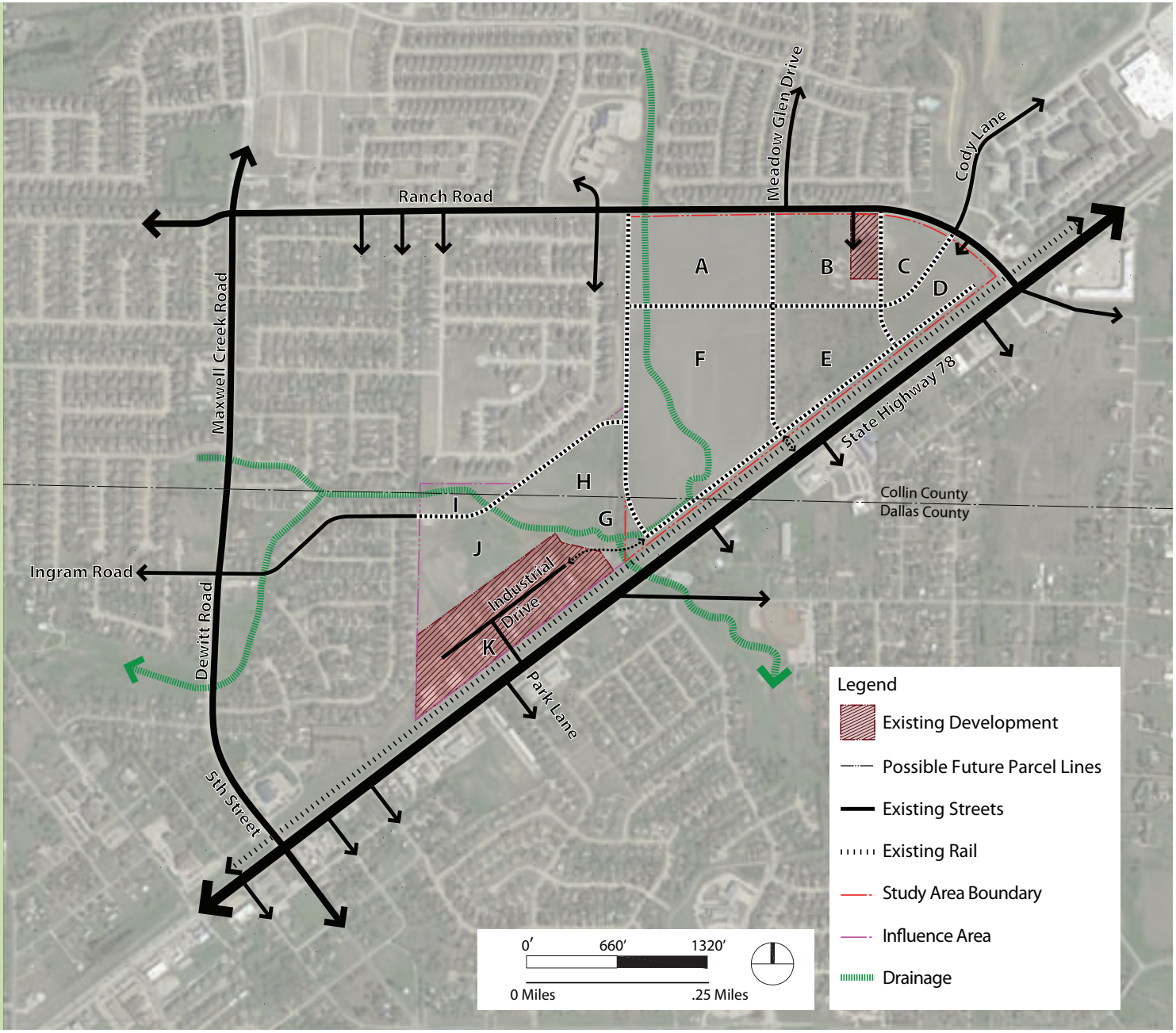
SUCCESSIVE DEVELOPMENT

Successive development is a concept acknowledging that achieving a desired development pattern and urban form may take multiple development cycles and that each development cycle must address the requirements of the current development market while preserving opportunities for efficient future redevelopment. Successful successive development embraces three design and development principles which should be considered for the study area. See Figure 3.

- **Establish a long-term development vision and framework.** A successive framework locates the primary circulation network and identifies a possible future street and block system. When possible, future street easements should be located along existing property lines so that new streets can be constructed with future development.
- **Provide infrastructure for more intense future development.** Upgrading providing roads and utilities is costly and can be a significant deterrent to achieving development. Over-sizing some infrastructure elements where more dense development can be realized within the next one to two development cycles may facilitate desired redevelopment more quickly.
- **Locate buildings clear of possible future road easements.** The location and size of buildings on parcels can either facilitate or impede development. To increase the likelihood of successful development, buildings should be located and designed to accommodate a planned street network based on the long-term vision. When buildings are located in the center of a parcel, future subdivision of the parcel can be difficult from a land use and cost perspective. If it is possible to subdivide the parcel, buildings centered on a parcel can result in undersized parcels and scale issues, which can be a deterrent to future redevelopment and do not fulfill community goals.

Development Scenarios

Figure 4
Transportation Framework



DEVELOPMENT SCENARIOS

Development frameworks for highest and best use development have been determined based on opportunities, challenges, and stakeholder input. The City of Sachse should use these frameworks to communicate, and in some instances regulate, the urban form patterns that new development will take in the study area. Frameworks are included for transportation, land use, open space and trails, and utilities and energy. Three (3) land use frameworks are presented and further evaluated in the following section entitled, “Value Capture”.

TRANSPORTATION FRAMEWORK

The overarching transportation goal is to help people move freely through the study area, and the surrounding neighborhoods. Secondly, connections are needed to provide alternative access opportunities and reduce congestion on Ranch Road. New streets should link existing residential areas with new places. By expanding connectivity, the entire area benefits from better circulation and a more interconnected street network (Figure 4). Objectives for development of the transportation network include:

- Create a connected street network;
- Provide green transportation strategies;
- Maximize multimodal connectivity;
- Adopt access management policies; and
- Encourage multiple shared parking areas.

CONNECTED STREET NETWORK

A system of street types will provide the backbone for existing and future development. For the context of the study area, the network includes three (3) distinct street types, including arterial streets, collector streets and local streets.

- **Arterial Streets** provide mobility between collectors, to the highway, and other arterials. In this context, 5th Street and State Highway 78 serve as the main arterials.
- **Collector Streets** connect arterials to other collectors and feed traffic to the highway at limited access points. For the study area, Ranch Road serves as the main collector. Ingram Road serves as a collector west of Dewitt Road/5th Street and could serve as a collector to the east if it connects to Ranch Road (Figure X).
- **Local Streets** should operate at slower speeds, and connect collectors to local roads and provide direct parcel access.

The conceptual roadway framework utilizes the existing parcel lines to divide the site into large scale blocks that are intended to include additional local streets and access-ways– as needed based on the ultimate development pattern. The east-west continuation of Cody Lane is anticipated throughout the study area. This will connect to a new north–south oriented street along the west study area boundary. A service road is anticipated adjacent to the railroad to provide a connected roadway network and access to the large project area. There is an opportunity to extend Ingram Road into the study area to expand and connect the broader roadway network. Reuse of the closed at-grade rail crossing is an optional connection that would allow better overall network connectivity.

MULTIMODAL MOBILITY

Sustainable places encourage people to walk, bike, or ride the bus as alternatives to personal vehicles. The transportation framework includes the provision of sidewalks, multiuse paths, bike lanes, appropriately-designed pedestrian and traffic lighting, landscaping, and signage. For example, pedestrian-scale lighting needs to be positioned over the sidewalk, rather than over the street. Improving sidewalk illumination can increase pedestrian traffic and enhance community safety. Landscaping should provide shade and generate visual interest to draw walkers down the sidewalk; that same level of visual interest can subconsciously slow down drivers. Pedestrian-friendly signage provides visual appeal and does not block sidewalks and walkways.

GREEN TRANSPORTATION

Providing for alternative modes of travel (walking, bicycling and transit) promotes healthy lifestyles and helps lower the impact of vehicular travel on the environment. This study encourages green transportation through the design of a system of streets with bicycle lanes, sidewalks, provision for future transit facilities, and open spaces with multiuse paths.

Green transportation practices are not limited to alternative modes. Designing streets and infrastructure through green methods means utilizing regional construction materials, recycled materials, elements with long-term durability and low-maintenance and energy-saving and/or renewable sources. The benefits include a healthier environment and more cost efficient maintenance and operations.

PARKING

Parking is an important component of the overall land use and transportation system. Parking will influence the look and feel of the study area and its neighborhoods, and thus it should be approached through a comprehensive strategy that plans for phased growth over time. Surface parking lots, in particular, tend to detract from the walkability of a place, promote auto-oriented development, and need to be sited carefully. In general, parking locations should be shared among multiple uses and areas, and be less prominent, located to the rear of buildings or in parking structures, if feasible.

ACCESS MANAGEMENT POLICIES

Access management policies are critical to the successful functioning of a connected street network within the study area. The signalized intersections located at Ranch Road and State Highway 78 currently provides the primary access into the study area. The following principles provide access recommendations for streets and intersection design.

ACCESS PRINCIPLES

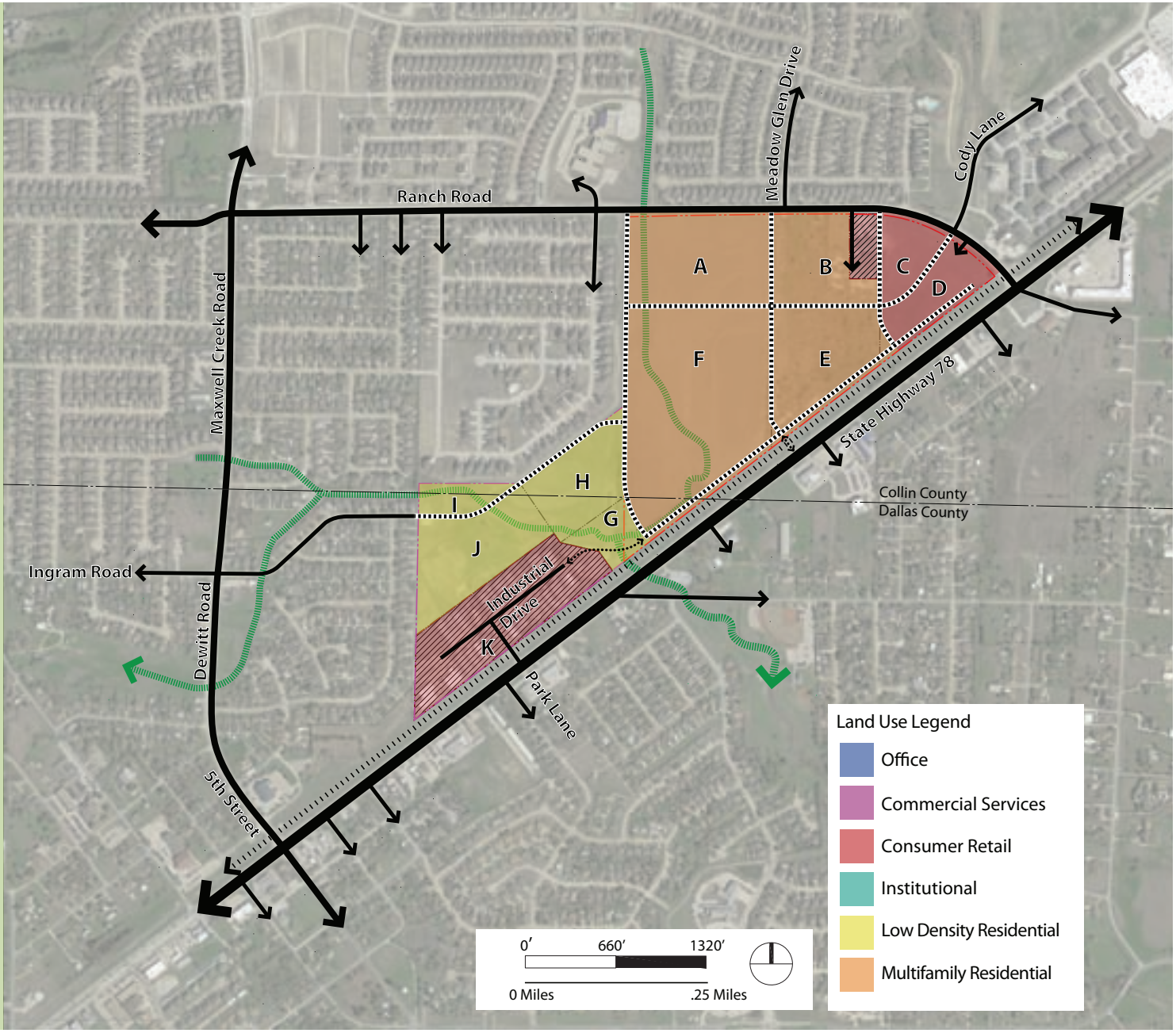
- **Arterial Streets** should provide full access to development areas at arterial and collector intersections, and include improved entry access, landscaping, visual appeal, and provide multimodal access. However, the provision of access directly to individual developments and businesses is discouraged along arterial streets. Direct access should be provided primarily through local streets.
- **Collector Streets** should provide full access to development areas at collector local street intersections, and include improved entry access. However, the provision of access directly to individual developments and businesses is discouraged along collector streets. Direct access should be provided primarily through local streets.
- **Local Streets** provide primary access to parcels and businesses and operate at slower speeds; between 25-30 miles per hour. Left and right turns should be provided to development areas through improved entry areas, which should include landscaping and design to be visually appealing and provide multimodal access. Shared access to multiple businesses or development from local streets is encouraged and curb cuts should be separated by a minimum distance of 300 feet.

INTERSECTION PRINCIPLES

The design of street intersections should consider the needs of vehicles, transit, bicyclists and pedestrians. Intersections should be designed to be as narrow as possible and limited in all conditions to a total of five (5) lanes or less when practicable. These conditions are required for appropriately scaled intersections for community design. A need for more turning movements is an indication that the connectivity network should be expanded, rather than the intersection being expanded.

- **Major Intersections** include streets that intersect with 8 total travel lanes or more. A typical example is an intersection of two streets, each with 2 lanes in each direction and no dedicated turning bays. Major intersections should include crosswalks a minimum of 12 feet wide and include a pedestrian refuge area. Lane widths at intersections should be between 10 feet 6 inches and 11 feet wide.
- **Local Street Intersections** include streets that intersect with 7 total travel lanes or fewer. A typical example is an intersection of two streets, each with 3 lanes: one lane in each direction and a center turn lane. Local street intersections should include crosswalks a minimum of 8 feet wide. Lane widths at intersections should be between 10 feet and 10 feet 6 inches wide.

Figure 5
Residential
Land Use Framework



LAND USE FRAMEWORKS

Stakeholders repeatedly described the need for a unique regional destination that provides a variety of jobs, housing choices, recreational amenities, dining opportunities and community services for residents and visitors. Based on stakeholder input, the opportunities described in the precious section, the large size of the combined parcels, and the strategic location of the study area, there is an opportunity to create a destination place that could include a residential neighborhood, an employment/ campus center, or a mixed-use/professional services center. Each of the three scenarios is presented below as viable, market-based programs.

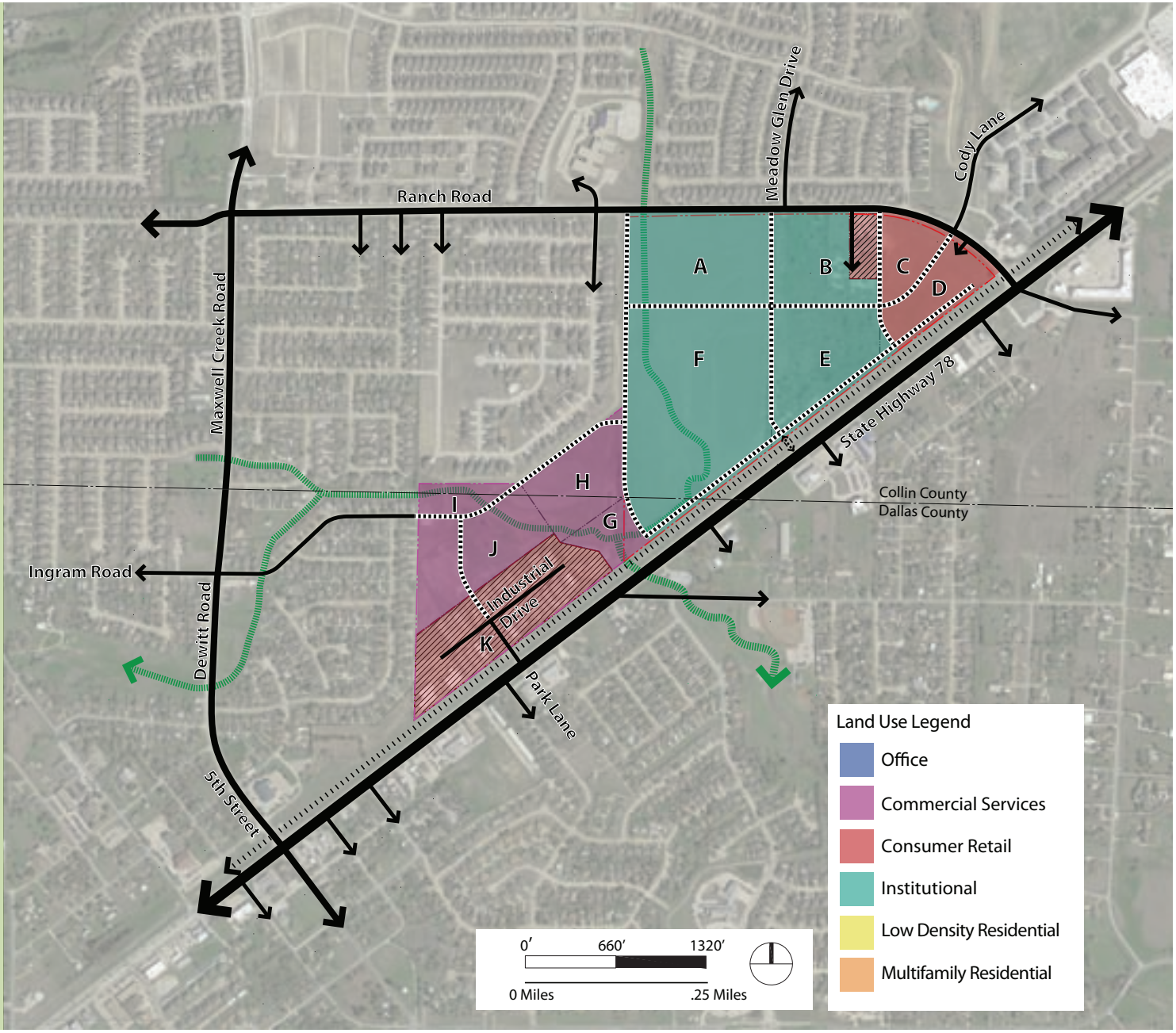
RESIDENTIAL NEIGHBORHOOD WITH RETAIL SERVICES

A viable land use framework could include a large amount of residential with some support retail services, including neighborhood scaled businesses and restaurants. As shown in Figure 5, retail could be located at the corner of Ranch Road and State Highway 78 (blocks C and D), with a large area for denser housing than is typical for the area, attaining densities from 8 units per acre to approximately 32 units per acre (blocks A, B, F and E). Low density single family housing could be located in the secondary study area and integrate with the scale and pattern of the surrounding neighborhood. Table 1 illustrates a viable market based development program for residential uses with retail support services.

BLOCK	USE	AREA	DU/FAR		DEVELOPMENT PROGRAM		
	(TYPE)	(ACRES)	(LOW)	(HIGH)	(LOW)	(HIGH)	
A	MULTIFAMILY RESIDENTIAL	16	8	32	128	512	UNITS
B	MULTIFAMILY RESIDENTIAL	9	8	32	72	288	UNITS
C	RETAIL	5	0.15	0.35	32,670	76,230	SQ. FT.
D	RETAIL	7	0.15	0.35	45,738	106,722	SQ. FT.
E	MULTIFAMILY RESIDENTIAL	13	8	32	104	416	UNITS
F	MULTIFAMILY RESIDENTIAL	33	8	32	264	1,056	UNITS
G	NON-DEVELOPABLE	2					
H	LOW DENSITY RESIDENTIAL	9	4	8	36	72	UNITS
I	LOW DENSITY RESIDENTIAL	3	4	8	12	24	UNITS
J	LOW DENSITY RESIDENTIAL	12	4	8	48	96	UNITS
K	LIGHT INDUSTRIAL (EXISTING)	16	0.25	0.5	174,240	348,480	SQ. FT.
	TOTAL DEVELOPABLE AREA (ACRES)	125					ACRES
	TOTAL LEASABLE AREA (SQ. FT.)				252,824	77,446	SQ .FT.
	TOTAL RESIDENTIAL UNITS				224	704	UNITS

Table 1
Residential Development Program Scenario

Figure 6
Campus
Land Use Framework



EMPLOYMENT/CAMPUS CENTER

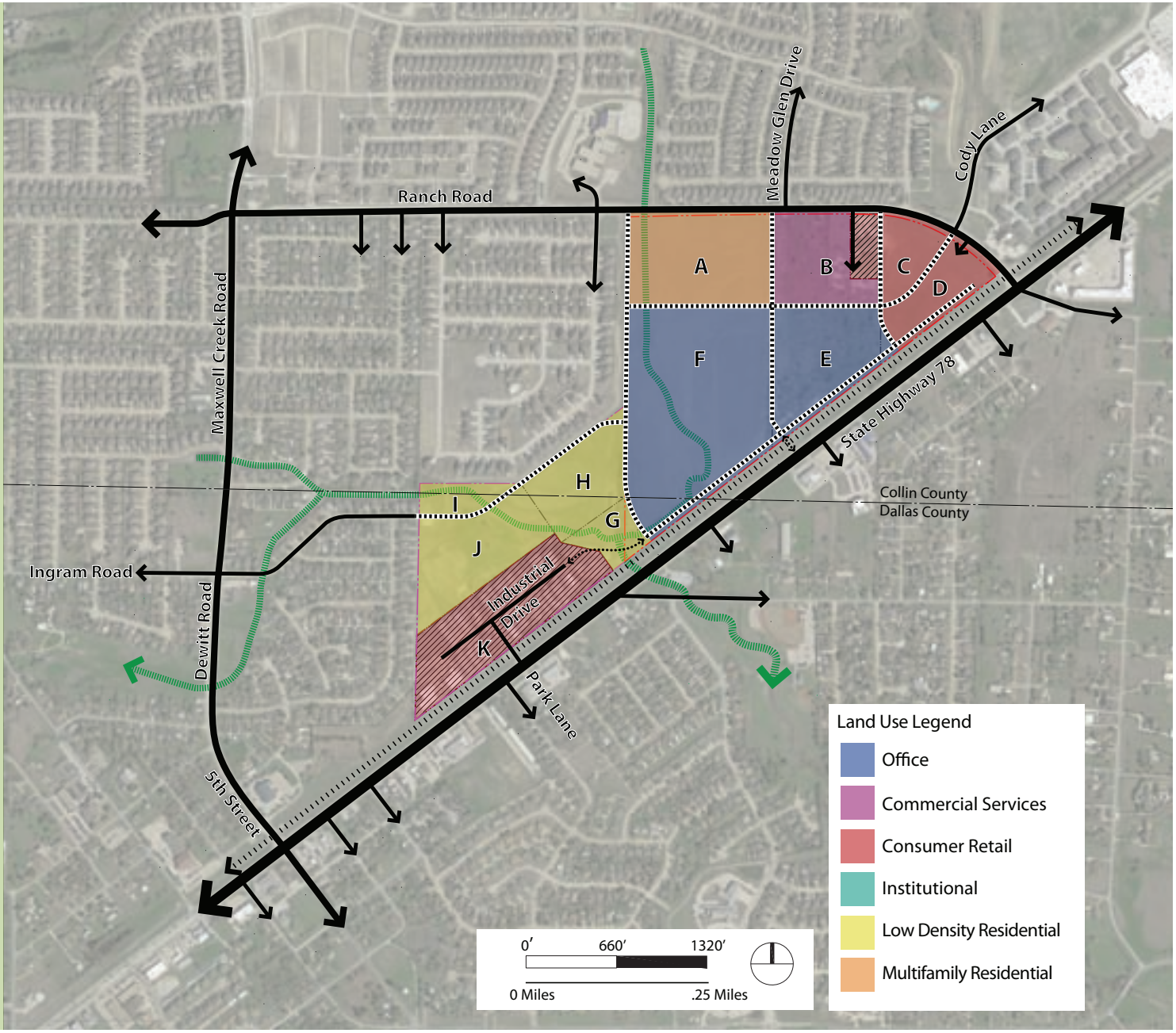
Based on the overall large size of the study area it could be a good location for an employment center, or large institutional or educational campus. As shown in Figure 6, retail could be located at the corner of Ranch Road and State Highway 78 (blocks C and D), with a large area for employment that could be development as a complex of Class A or Class B Light Industrial buildings, or Class B office buildings. Alternatively, this pattern could also organize around a campus setting for corporate offices and/or a mix of educational and community uses. The density imagined for this part of the study area for non-residential uses would range from a floor area ratio* of 0.3 to 0.6 (blocks A, B, F and E). Less dense neighborhood services, or light industrial uses could be located in the secondary study area and integrate with the existing light industrial uses along Industrial Drive. Table 2 illustrates a viable market based development program for and employment or campus center.

**(Floor Area Ratio is a common metric used to measure densities of non-residential buildings. The number represents the building square footage as a ratio to the lot size. For instance, an FAR of 1 means that the total building square footage, regardless of number of stories, is equivalent to the lot size.)*

BLOCK	USE	AREA	DU/FAR		DEVELOPMENT PROGRAM		
	(TYPE)	(ACRES)	(LOW)	(HIGH)	(LOW)	(HIGH)	
A	CAMPUS	16	0.3	0.6	209,088	418,176	SQ. FT.
B	CAMPUS	9	0.3	0.6	117,612	235,224	SQ. FT.
C	RETAIL	5	0.15	0.35	32,670	76,230	SQ. FT.
D	RETAIL	7	0.15	0.35	45,738	106,722	SQ. FT.
E	CAMPUS	13	0.3	0.6	169,884	339,768	SQ. FT.
F	CAMPUS	33	0.3	0.6	431,244	862,488	SQ. FT.
G	NON-DEVELOPABLE	2					
H	COMMERCIAL SERVICES	9	0.3	0.6	117,612	235,224	SQ. FT.
I	COMMERCIAL SERVICES	3	0.3	0.6	39,204	78,408	SQ. FT.
J	COMMERCIAL SERVICES	12	0.3	0.6	156,816	313,632	SQ. FT.
K	LIGHT INDUSTRIAL (EXISTING)	16	0.25	0.5	174,240	348,480	SQ. FT.
	TOTAL DEVELOPABLE AREA (ACRES)	125					ACRES
	TOTAL LEASABLE AREA (SQ. FT.)				679,536	1,359,072	SQ. FT.
	TOTAL RESIDENTIAL UNITS				117,612	235,224	UNITS

Table 2
Campus Development Program Scenario

Figure 7
Mixed Use
Land Use Framework



MIXED-USE PROFESSIONAL SERVICES CENTER

Based on a range of stakeholder input and analysis of the market opportunities, a viable option would be to development a mix of uses over time that are consistent with specific building industry cycles. In this context, each use could be developed denser to achieve a higher net utilization of the study area. While vertical mixed use may be desirable, achieving a horizontal mix of uses in a desired development pattern of appropriate sized blocks and streets could create an area to attract long term investment.

Given a range of demographic shifts occurring in the US, including desires for families to "age in place", and given the lack of concentrated medical services in the area, an overall theme could be developed to include a range of wellness-based uses including medical office, education, services, research and living. As shown in Figure 7, retail could be located at the corner of Ranch Road and State Highway 78 (blocks C and D), with the area adjacent to Ranch Road for commercial services and multifamily residential (blocks A and B). A small-scaled neighborhood of medical and wellness-based uses could be located in the center of the study area (blocks F and E), with transitional housing located in the secondary study area (blocks G, H, I and J). Table 3 illustrates a viable market based development program for a mixed-use professional center.

BLOCK	USE	AREA	DU/FAR		DEVELOPMENT PROGRAM		
	(TYPE)	(ACRES)	(LOW)	(HIGH)	(LOW)	(HIGH)	
A	MULTIFAMILY RESIDENTIAL	16	8	32	128	512	UNITS
B	MIXED-USE/OFFICE	9	0.4	0.6	156,816	235,224	SQ. FT.
C	RETAIL	5	0.25	0.4	54,450	87,120	SQ. FT.
D	RETAIL	7	0.25	0.4	76,230	121,968	SQ. FT.
E	PROFESSIONAL CAMPUS	13	0.3	0.6	169,884	339,768	SQ. FT.
F	PROFESSIONAL CAMPUS	33	0.3	0.6	431,244	862,488	SQ. FT.
G	NON-DEVELOPABLE	2					
H	LOW DENSITY RESIDENTIAL	9	4	8	36	72	UNITS
I	LOW DENSITY RESIDENTIAL	3	4	8	12	24	UNITS
J	LOW DENSITY RESIDENTIAL	12	4	8	48	96	UNITS
K	LIGHT INDUSTRIAL (EXISTING)	16	0.25	0.5	174,240	348,480	SQ. FT.
	TOTAL DEVELOPABLE AREA (ACRES)	125					ACRES
	TOTAL LEASABLE AREA (SQ. FT.)				631,620	662,624	SQ. FT.
	TOTAL RESIDENTIAL UNITS				224	704	UNITS

Table 3
Mixed-Use Development Program Scenario

OPEN SPACE & TRAILS

Open space and trails are intended to take the form of both passive and active spaces, each with a different form and function. Vegetative buffers along major transportation corridors and existing uses will enhance roadway aesthetics and protect sensitive land uses. An interconnected network of green streets will provide both multimodal opportunities and stormwater management. A robust network of diverse open space ensures community benefit and signifies the corridor as a unique place. A system of parks, trails, greenways, pedestrian paths and plazas, waterways and stormwater drainage areas are proposed throughout the study area, as shown in Figure 8, followed by principles for creating sustainable open spaces and stormwater management.

- **Landscape Buffer:** Landscape buffers are proposed along the railroad alignment to mitigate industrial related sight and sounds. Additionally, a landscape buffer could be located along the west edge of the study area depending on the ultimate uses that are approved along this edge. Within the secondary study area a landscape buffer should be considered if blocks G through I are developed in a non-industrial manner. The buffers should be installed to ensure visibility and enhanced ingress/egress onto frontage streets and local streets.
- **Green Streets:** Green streets are intended to carry multiple transportation modes (walking, bicycling and transit) within an interconnected network of streets. Green streets are proposed within the development area to link small parks and open spaces together. They should serve as vegetated corridors with a mix of native plantings and include stormwater management devices (bioswales, vegetated strips, etc).

UTILITIES & ENERGY

The extension of utilities into the study area will be critical as new development occurs. The current availability of utilities directly adjacent to Ranch Road could promote strip development, unless utilities are organized and extended to support the entire study area. If the study area is developed as a series of smaller scaled street and blocks, major utilities that will need to be extended into the study area include sewer and water. All new development should integrate effective stormwater management practices to utilize natural processes and reduce the need for more costly solutions.

INTEGRATE SUSTAINABLE ENERGY PRACTICES

The vision for new compact development within the study area will require higher energy requirements per acre than typical development. A goal for new development should be to reduce the need for some energy requirements. When considering a carbon-reduced or carbon-neutral development project, it is critical to design, engineer, and specify buildings that minimize energy use. Reduced energy use can be achieved through a combination of passive and active system design measures.

- **Passive systems.** In the context of passive solar building design, the aim is to maximize solar gain within the building in the winter (to reduce space heating demand) and to control it in summer (to minimize cooling requirements). Building orientation and form can affect the utilization of thermal mass that could be used to even out the fluctuations during the day and to some extent between days. Awnings, canopies, and street trees play an important role in providing effective responsive shading at low costs, reducing heat gains in roadways and buildings, and enhancing the streetscape of urban corridors. In direct solar gain systems, the composition and coating of the building glazing can also be manipulated to optimize the greenhouse effect, while its size, position and shading can be used to optimize solar gain. Solar gain can also be transferred to the building by indirect or isolated solar gain systems.
- **Active systems.** Passive systems can be augmented with active solar design systems and can include photovoltaic cells, district energy, and heat recovery systems. Active systems tend to require higher levels of technology, tend to have increased costs, and can require specialized management to maintain. Active systems should be considered when possible, and evaluated based on a life-cycle cost basis rather than an initial capital cost basis.

URBAN DESIGN PRINCIPLES

The development frameworks previously discussed represent an illustration and guiding principles to create responsible and sustainable economic development within the study area. But more definitive recommendations are required to achieve the vision set forth in this Plan. The following Urban Design Principles describe the desired character for the development that would support and maintain long term value. The principles describe block sizes, building massing, building orientation and frontage, view terminations, landmarks, and sidewalks and bike paths. These principles should be used when reviewing any development within this study area to ensure long term compatibility for successive development, and compatibility of the goals and principles set forth in this study.

BLOCK SIZES

The study proposes that a compact development pattern be created in the study area, including an interconnected street grid pattern with development blocks sized for walkability and appropriate building orientation for street frontage. The maximum block perimeter should be approximately 1,400-1,600 feet and not exceed 1,800 feet. The maximum length of any block edge should not exceed 600 feet. Possible block sizes to be consider could be 340’ x 340’, 340’ x 370’, 300’ x 600’, and 400’ x 400’.

BUILDING HEIGHTS

In order to ensure new development is compatible with existing development, the plan proposes different building heights within the study area. The tallest buildings should be located along within the center of the site and along the rail corridor. Lower-scaled buildings, that are no more than one (1) story higher than adjacent buildings, will provide tiered massing within the study area, and provide compatible development heights adjacent to existing single family residential neighborhoods.

BUILDING ORIENTATION & FRONTAGE

To create a more pedestrian-friendly environment within the study area, the plan proposes that certain sides of development parcels be designated “primary building orientation”. These sides align with the roadway alignment described in the transportation framework (Figure X) and should have a 15-foot maximum setback from curb to building face. In addition, the primary orientation should include special façade and fenestration treatments and should be the primary building entry location.

VIEW TERMINATIONS

An important element in the creation of places is the visual experiences that are created. To this end, it is important to consider view termination – the building, signage, or open space seen when looking down a street. The view must be considered in the design and will require higher quality architectural and design treatments. At a minimum, view termination points cannot include trash enclosures, service entrances, or truck access. The view terminations are based on sight lines from the road alignment. Additionally, view terminations should focus on gateways and landmarks located within neighborhoods when appropriate.

LANDMARKS & GATEWAYS

Gateways and landmarks help to create a sense of place and assist people in creating their mental maps of places. Gateways are distinct elements that notate the boundaries and access points into areas. Gateways can take the form of monuments, walls, bridges, arches, or distinctive architecture.

Landmarks can be smaller-scaled elements that are located within areas and can become organizing elements for neighborhoods. Landmarks can include monuments, plazas, parks and distinctive architecture. Both gateways and landmarks should be considered when developing a mix of uses. This can help designate a range of areas and branding for the broader area.

SIDEWALKS & BIKE PATHS

Throughout the study sidewalks should be located on both sides of streets. Local streets are proposed to have a minimum sidewalk width of 6-feet on each side. Arterial and collector streets should include sidewalks on each side and a minimum width of 8-feet. All sidewalks should have a vegetated buffer between the sidewalk and the roadway, unless a wider sidewalk is desired. The study proposes the creation of bike paths throughout the study area that connect to other local and regional bike facilities.

Figure 8
Sustainable Features

SUSTAINABLE FEATURES THAT MAKE A PLACE

Watters Creek , Allen Texas. Watters Creek is situated at I-75 and Bethany Drive, both main thoroughfares through the City of Allen Texas. The development sits on 52 acres with approximately 300,000 square feet of shopping, restaurant and community activities in the heart of Allen, Texas. Sustainability is a core component of both Watters Creek and the nearby Montgomery Farm, an environmentally-conscious residential community situated on 500 acres of prairie and forest land.

Watters Creek is proof that a series of storefronts will not make a place. Natural amenities integrated throughout encourage visitors to stop and explore. A central water feature flows through the center of Watters Creek, tying the entire development together. This Creek serves as a focal point with many different functions. Outdoor dining fronts it; parks and pathways extend from it; waterfalls cascade through it and pockets of green space provide needed shade.

STREET DESIGN

Key to establishing desirable character is the interrelationship between urban form and streets. The previous section describes the urban design principles for the appropriate design of the proposed urban form. This section addresses the appropriate design of the streets throughout the study area.

STREET COMPONENTS

An objective of this study is to establish an overall streetscape character framework and hierarchy of streets. For the purposes of analysis, each existing and proposed street can be divided into three zones: the travel zone, pedestrian zone and development zone. Refer to Figure 9 for a depiction of the zones.

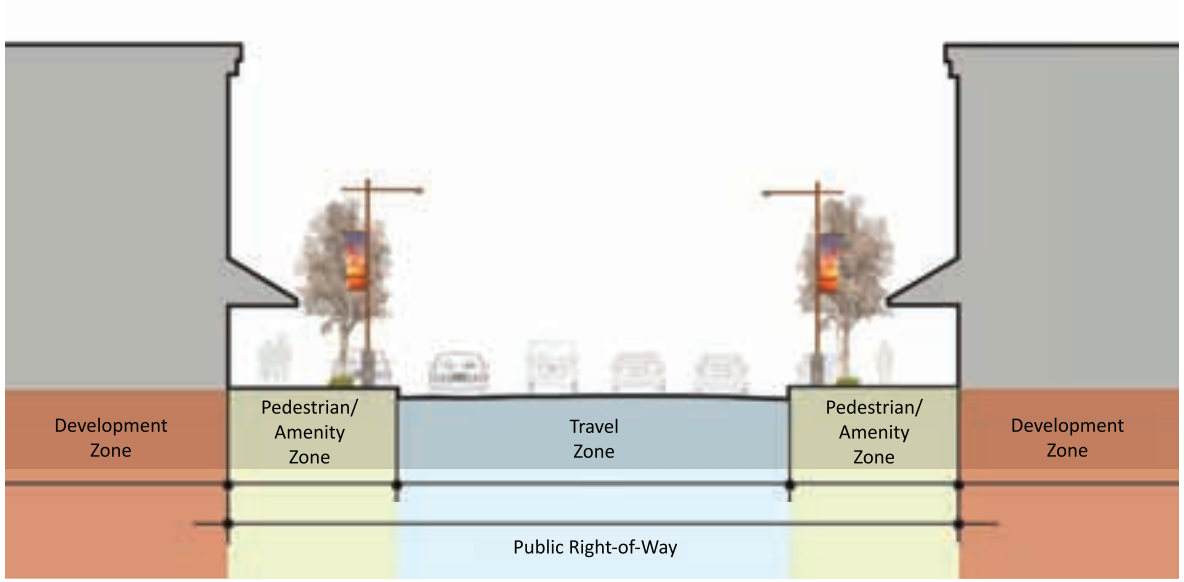


Figure 9
Street Zones

TRAVEL ZONE

The travel zone includes the public realm elements located between the curb lines: the vehicular lanes, bicycle lanes, medians, crosswalks and on-street parking. The design of the travel zone affects how much traffic a street can carry and how fast vehicles will travel. As a general rule, as lane width increases vehicles can comfortably travel at higher speeds. Alternatively, as lane width decreases so does the speed travelers are comfortable driving.

PEDESTRIAN/AMENITY ZONE

The pedestrian/amenity zone is the section of the street needed to move people between land uses, and between vehicles and land use. This environment includes sidewalks, curb and gutter, bus stops and street furniture such as lighting and benches. Street trees, tree lawns and planter boxes are typically located in a green area which separates the pedestrian walkway from the traffic zone. The pedestrian/amenity zone is the interface between the development zone and the travel zone. A high quality pedestrian environment is essential on streets to encourage street activity and provide for a safe and inviting area.

DEVELOPMENT ZONE

The development zone is established by the property line. Design Standards and Guidelines should be created for this study area that describes design criteria for site planning, architecture, landscape architecture, lighting, and signage. It is important that the design of buildings and entrances appropriately interfaces with the design of the pedestrian and amenity zone.

VALUE CAPTURE

Infrastructure plays a pivotal role in enhancing productivity and quality of life in our cities. Given current economic conditions, cities are increasingly looking for alternative mechanisms to help finance and deliver new projects. Depending on the project type, funding can be provided through a combination of joint efforts and programs. Increasingly there is a gap between critical needs and funds available. Additionally, many cities and agencies are struggling to keep up with the mounting operations and maintenance costs of existing infrastructure systems. Capturing the value created by development due to infrastructure improvements is a viable way to create sustainable funding streams.

Value capture strategies harness increases in property values and sales resulting from economic development surrounding defined areas to help fund further investments in public infrastructure. Both private and public sector entities benefit financially from the public improvements: private parties through increased land values and rents, and public-sector agencies through increased revenue from property or other taxes. Value capture mechanisms seek to recapture a portion of these revenues to help repay the upfront investment that the public agency has made. However, value capture mechanisms work only if demands for the public improvements are reflected in real estate values.

Value capture mechanisms could be utilized to help fund a range of public improvements in the study area that would increase the overall value of development and encourage a denser, higher value development character. The most common revenue tools available for value capture tend to fall into three general categories: tax-increment financing, special tax assessments, and development-impact based fees. By definition, each of these general categories has a different type of tax/fee structure, each resulting in a unique financial profile in terms revenue stream stability, predictability, growth over time, and overall risk and return.

- **Tax-Increment Financing** - In general terms, tax-increment financing is a mechanism for capturing all or part of the increased property tax paid by properties within a designated area. TIF is not an additional tax, nor does it deprive governments of existing property tax revenues up to a set base within the TIF district. Instead, part of or all of future property taxes (above the set base level) resulting from increased property values or new development are dedicated to paying for the public improvement that caused the value increases and additional development.
- **Special Tax Assessments** - Special tax assessments are additional taxes paid within defined geographic areas where parcels receive a direct and unique benefit from a public improvement. Generally, the cost of the improvement is allocated to property owners within the defined benefit zone and collected in conjunction with property or sales taxes over a predetermined number of years. Once the annual assessment collections cover the cost of the improvement (or debt issued to pay for the improvement), the assessment is removed.
- **Development Impact Fees** - Development impact fees and excise taxes are one-time charges collected from developers and/or property owners to fund public infrastructure and services made necessary by new development. Impact programs are most successfully implemented in areas poised for significant growth with little or no existing development. Generally, rates are based on a formula taking into consideration the number of new dwelling units or square feet of non-residential space and the relative benefit the infrastructure provides the property. For transportation projects, relative benefit is usually determined by the distance a development is located from the improvement.

POTENTIAL DEVELOPED VALUE

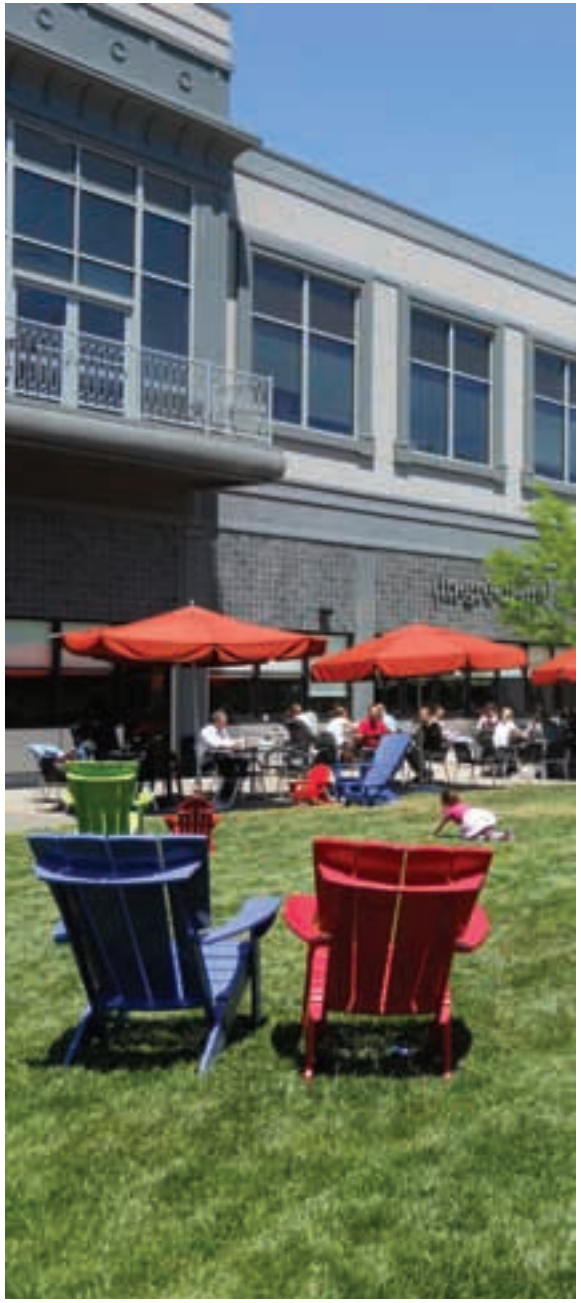
Based on the redevelopment program and logical phasing strategy presented earlier in this study, the potential development values for new development have been anticipated and summarized below in the following tables for each scenario.

The market value for new multifamily residential units that would be built in the study have been estimated to sell for an average $125,000 per unit, with new single-family homes estimated to sell for an average of $150,000 per home. Built out retail, campus and commercial service space is estimated to cost $150 per square foot, with mixed-use/ office estimated to cost approximately $250 per square foot.

RESIDENTIAL NEIGHBORHOOD WITH RETAIL SERVICES

BLOCK	USE	UNIT COST	DEVELOPMENT VALUE	
	(TYPE)	($/UNIT)	(LOW)	(HIGH)
A	MULTIFAMILY RESIDENTIAL	$125,000	$16,000,000	$64,000,000
B	MULTIFAMILY RESIDENTIAL	$125,000	$9,000,000	$36,000,000
C	RETAIL	$150	$4,900,500	$11,434,500
D	RETAIL	$150	$6,860,700	$16,008,300
E	MULTIFAMILY RESIDENTIAL	$125,000	$13,000,000	$52,000,000
F	MULTIFAMILY RESIDENTIAL	$125,000	$33,000,000	$132,000,000
G	NON-DEVELOPABLE	$0	$0	$0
H	LOW DENSITY RESIDENTIAL	$150,000	$5,400,000	$10,800,000
I	LOW DENSITY RESIDENTIAL	$150,000	$1,800,000	$3,600,000
J	LOW DENSITY RESIDENTIAL	$150,000	$7,200,000	$14,400,000
K	LIGHT INDUSTRIAL (EXISTING)	$100	$17,424,000	$34,848,000
	TOTAL DEVELOPABLE AREA (ACRES)		$114,585,200	$375,090,800

Table 4
Anticipated Value of Residential Development



EMPLOYMENT OR CAMPUS CENTER

BLOCK	USE (TYPE)	UNIT COST ($/UNIT)	DEVELOPMENT VALUE (LOW)	(HIGH)
A	CAMPUS	$150	$31,363,200	$62,726,400
B	CAMPUS	$150	$17,641,800	$35,283,600
C	RETAIL	$150	$4,900,500	$11,434,500
D	RETAIL	$150	$6,860,700	$16,008,300
E	CAMPUS	$150	$25,482,600	$50,965,200
F	CAMPUS	$150	$64,686,600	$129,373,200
G	NON-DEVELOPABLE	$0	$0	$0
H	COMMERCIAL SERVICES	$150	$17,641,800	$35,283,600
I	COMMERCIAL SERVICES	$150	$5,880,600	$11,761,200
J	COMMERCIAL SERVICES	$150	$23,522,400	$47,044,800
K	LIGHT INDUSTRIAL (EXISTING)	$100	$17,424,000	$34,848,000
	TOTAL DEVELOPABLE AREA (ACRES)		$215,404,200	$434,728,800

Table 5
Anticipated Value of Campus Development

MIXED-USE PROFESSIONAL SERVICES CENTER

BLOCK	USE (TYPE)	UNIT COST ($/UNIT)	DEVELOPMENT VALUE (LOW)	DEVELOPMENT VALUE (HIGH)
A	MULTIFAMILY RESIDENTIAL	$150,000	$19,200,000	$76,800,000
B	MIXED-USE/OFFICE	$250	$39,204,000	$58,806,000
C	RETAIL	$150	$8,167,500	$13,068,000
D	RETAIL	$150	$11,434,500	$18,295,200
E	PROFESSIONAL CAMPUS	$250	$42,471,000	$84,942,000
F	PROFESSIONAL CAMPUS	$250	$107,811,000	$215,622,000
G	NON-DEVELOPABLE	$0	$0	$0
H	LOW DENSITY RESIDENTIAL	$150,000	$5,400,000	$10,800,000
I	LOW DENSITY RESIDENTIAL	$150,000	$1,800,000	$3,600,000
J	LOW DENSITY RESIDENTIAL	$150,000	$7,200,000	$14,400,000
K	LIGHT INDUSTRIAL (EXISTING)	$100	$17,424,000	$34,848,000
	TOTAL DEVELOPABLE AREA (ACRES)		$260,112,000	$531,181,200

Table 6
Anticipated Value of Mixed-Use Development

Based on the three (3) scenarios and the assumptions described in this study, the highest development value would be achieved from a mixed-use professional services center. However, it should be noted that this type of development may require multiple developers to build products by phase over a multiyear time frame. It is also anticipated that a high quality public realm will be designed and built, and that this type of development would create a vibrant destination and support a range of uses that could respond to various market fluctuations and market cycles, rather than a single product type that would be vulnerable to market conditions for that specific product type.

Given these assumptions, a mixed-use professional services center would provide a highest and best use scenario by providing the highest comparable development value, built-in market resiliency, and provision for needed community services.