

Chapter Three

Growth Management

The concept of “growth management” is multi-faceted. It involves the City’s ability to provide adequate public infrastructure and municipal services to support existing development while programming the capital needs for continuing growth. It also involves the formulation of policy as to the direction and amount of future development to support the projected growth during the horizon of this plan. Also of importance is the capability for providing police and fire protection services in a fiscally responsible manner. Lastly, of significant consideration for this community is the best long-term interests of the defined zone of influence relating to the type, pattern, and extent of ongoing development.

Zachary has long been a small bedroom community on the outskirts of the Baton Rouge metropolitan area; that is, until receiving the distinction as having the highest-rated school district in Louisiana, together with the unfortunate incidences of Hurricanes Katrina and Rita. These occurrences continue to bring significant change to the community as the amount and pattern of development is quickly altering the community character. This brought about and, in fact, heightens the timing and importance of this plan. Through this plan, the City must position itself to proactively respond to the impending development to ensure growth occurs in a logical and responsible manner.

As the extent of Zachary’s urbanized area expands, the City must consider the practical and fiscal implications of extending its facilities, services, and authority over a broader area. While there are benefits to an increased tax base as a result of markets created by added rooftops, there may equally be detriments to the livability that will forever alter the community. For this and many other reasons, it is essential for the community to seize its economic opportunities while, at the same time, establishing effective measures to retain its cherished quality of life.

Over the course of the last three plus decades, the City has experienced a stable rate of growth, averaging between 1.7 and 2.0 percent annually. The analysis reflected in the demographic profile of *Chapter 1, Introduction & Community Profile*, supports the premise that this rate of growth will continue and likely increase during the next two decades. From an economic perspective, the increase in population and corresponding employment growth is a positive indicator of the City’s economic competitiveness and vitality. A continuation of this economic growth is – and must remain – a primary goal of the community. (Refer to *Chapter 7, Economic Development*, for information as to the City’s strategies for seizing its economic opportunities and the means and directions recommended by this plan.)

A question before this community is not only how to attract and sustain economic development, but how to maximize its net fiscal benefits. The pattern of growth and efficiency of service provision are contributing factors, among others. As displayed in *Map 2.1, Existing Land Use*, there is a large expanse of property already within the corporate limits. The expansion of the City limits was brought about by peripheral development requests and the City’s intent for managing its growth. Until recently, the City was largely of a contiguous form bordered roughly by Rollins Road on the north, LA 965 to the west,



"Without a proactive stance to ensure that development occurs in a logical and sequential pattern, it will continue to be driven solely by market forces, which does not necessarily occur in a manner that can be efficiently served with adequate public facilities and services."

- Kendig Keast Collaborative

McHugh Road to the east, and the City limits to the south. Much of the newer development, however, is occurring around the fringes of the City, some within, but mostly outside, the City limits. Continuing this pattern of expanding the boundaries upon request will eventually strain the fiscal resources of the community; that is, without the policies and firm directions of this plan.

Purpose

The purpose of this chapter on growth management is to:

- ◆ identify and recommend policies and strategies for managing the community's long-term growth and character;
- ◆ ensure efficient provision of adequate public infrastructure and municipal services;
- ◆ grow in a manner that is both responsible and sustainable; and
- ◆ achieve long-term fiscal health.

The City must be in a position to respond to its increasing service demands and delineate the areas it is prepared to serve to avoid a sprawling, unsustainable pattern of development beyond the City limits and throughout its zone of influence.

Sprawl and its Implications

Sprawl is defined as an inefficient consumption of land, which spreads from urban areas to undeveloped rural land, resulting in an inefficient use of infrastructure. Sprawl is marketable because it commonly equates to larger lots and lower home prices within an attractive rural setting. From the community's perspective, however, it is short-sighted and may be of long-term consequence without adequate plans and policies. Too often, little thought is given to the cumulative impacts of development until it has occurred and the impacts are fully realized.

While growth will continue to bring economic opportunity and gain, without adequate foresight and preparedness it will involve long-term consequences, which may include, among others:

- ◆ Erosion of a clearly defined edge to the community, leading to a loss of physical identity.
- ◆ Degradation of significant environmental resources within and around Zachary, including its expanses of floodplain and corresponding wetlands, habitats, and heavily vegetated areas.
- ◆ Overwhelmed public infrastructure, such as increased traffic volumes on narrow, substandard roadways; inadequate water and wastewater systems; and an expanded service area requiring substantial investments for adequate provision of police and fire protection services.
- ◆ Premature and unplanned shifts in traffic patterns causing undue congestion and environmental impacts as development occurs in an uncoordinated fashion before adequate road infrastructure is in place.
- ◆ A burdening of public facilities such as parks, libraries, and particularly schools that are not of a quantity, suitable size, or equipped to handle the added demands.
- ◆ A lack of coordinated planning between individual developments – particularly

STATISTICS ON THE SPRAWLING OF AMERICA

Over a 20-year period, the 100 largest urbanized areas sprawled out over an additional 14,545 square miles. That was more than nine million acres of natural habitats, farmland, and other rural space that were covered over by the asphalt, buildings, and subdivisions of suburbia.

between the City and Parish – leading to a discontinuous and disjointed street system and an inability to plan for linear linkages and greenways.

- ◆ The provision of private streets and package treatment plants, for which the burden will likely shift to the City in future years without the requisite funding to pay for it.
- ◆ Cumulative impacts on the natural environment due to stormwater runoff and nonpoint source pollution of the Comite River, Doyle’s Bayou, White Bayou, Cypress Bayou, and other area tributaries and watercourses, as well as possible contamination of source drinking water.
- ◆ Inefficient provision of services meaning a larger investment in infrastructure systems with fewer than the optimal number of connections to pay for it, thereby leading to increased bonding and taxes.
- ◆ Increased air pollution as vehicles traverse longer distances to reach places of work, shopping, services, education, recreation, and entertainment that are not within close proximity or a convenient distance to new, rural development. This means that more public dollars must be expended on road building, expansion, maintenance, street lighting, and traffic enforcement.
- ◆ Declining rural character and agricultural operations as formerly large, contiguous farms are broken up by scattered development and the proliferation of “exurban,” large-lot acreages.
- ◆ Continued disinvestment in the historic original town area as new development attracts and creates a market for new commercial development in nearer proximity to its customer base – along major roadways and on the fringe of the community – a distance from the commercial core. This leads to an erosion of the existing tax base, often leaving vacant buildings and storefronts behind. The first indications of this are now occurring at the intersection of LA 964 and LA 64.

Issues and Opportunities

The issues summarized below are based on the input received from small group interviews in May 2007 and facilitated break-out sessions held during the Citizens’ Congress in June 2007, as well as the objective review and research of the Consultant Team.¹ These issue statements are the foundation of the corresponding goals and action recommendations.

Contiguous Pattern of Development

The community form is mostly contiguous, although by way of development requests and subdivisions developing within the rural areas of the Parish, there are increased signs of scattered development. As displayed in **Map 3.1, Peripheral Development**,² there are several subdivisions that are within or abutting the City’s one and one-half mile zone of influence.³ This, together with those that are developing or proposed to develop adjacent to the City limits, causes concern as to the efficient provision of adequate infrastructure.

¹ Kendig Keast Collaborative and TIP Strategies, Inc.

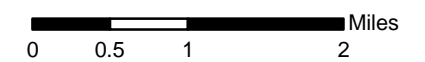
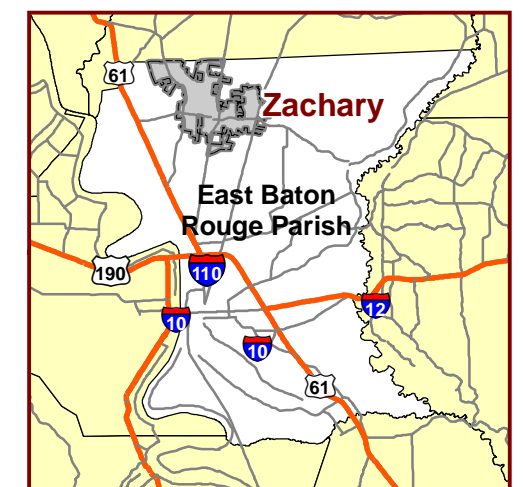
² Map of Subdivisions, East Baton Rouge Parish Planning Commission

³ A zone of influence map was discovered through plan reconnaissance although there does not appear to be any corresponding agreement between the City and Parish. It is in the City’s interest to extend their area of influence to coincide with the school district boundaries, which is denoted on the plan maps.

Map 3.1 Peripheral Development

- ★ Parish Subdivisions
- ⬢ Corporate Limits
- ⬢ Proposed Zone of Influence
- ⬢ East Baton Rouge Parish Boundary
- Major Water Bodies
- Streams
- Railroads

Subdivision	Date
1 Zachary Road Acres	2/17/1954
2 Lutschg	6/6/1958
3 Hillside Farms	1/7/1970
4 Pleasant Park	8/25/1983
5 Beaver Creek on the Plains	10/11/2002
6 Pecan hills	7/16/2005
7 High Plains Crossing	5/10/2005
8 Country Plaza	4/12/1976
9 Meadow Glen	7/30/1984
10 Abundance Place	1/6/1978
11 Griffin Place	10/8/1991
12 College Acres	11/24/2024
13 Castle Place	5/30/1986
14 Deer Park	2/28/1983
15 Watson Farms	6/2/1980
16 Fiesta Homes	11/14/1969
17 Blackwater Estates	4/15/1969
18 Blackwater Road Acres	8/6/1985
19 Gills Park	12/6/1991
20 Northbaker Park	11/30/1978
21 Comite Acres	8/3/1976



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Goals

- ▶ Maintain a compact, efficient community form
- ▶ Development coordinated to occur with the timely provision of public facilities and services
- ▶ Well-managed development activities within the City's defined "zone of influence"
- ▶ Intergovernmental coordination to facilitate orderly and fiscally sustainable growth

Currently, roughly 34 percent of the corporate limits are developed. Vacant, undeveloped land accounts for 12 percent and land classified as agricultural and rural amounts to 54 percent of the corporate limits. Generally, there are an equal number of vacant acres to that now residentially developed. In simple terms, this suggests that the City could easily double its population without requiring annexation.

Given the limitations of State law pertaining to the process by which the City may annex territory "lying contiguous and adjacent to"⁴ its corporate limits, developing in a contiguous form is difficult. This is so because the extension of corporate limits must come by way of petition on behalf of "one-third in number and value of the bona fide owners of any lots or land," followed by elections, first by those subject to annexation and second by the community residents.⁵ Therefore, there must be reasons for which those outside the corporate limits are interested in being annexed. This is generally to access municipal infrastructure systems and public services such as water and gas utilities, municipal police and fire services (with an acceptable fire insurance rating), and solid waste collection, among others. Without these added benefits, or in the case of those outside the City limits who are already receiving water and gas services from the City, there are few reasons for annexation. Effectively, this enables an inefficient development pattern and contributes to a pattern of sprawl.

For growth management purposes, it is most appropriate and feasible to direct development to areas within the corporate limits where the City has regulatory control. Given the amount of development in the Parish, however, the City must act in its best interest – and those of the Zachary School District – to establish firm policies and an approach for managing the type and pattern of development in its proposed zone of influence.⁶

Recommendations

1. Designate the intended land use character on the Future Land Use Plan and corresponding zoning map for the preferred growth areas. This allows development more readily in the preferred growth areas since they are effectively pre-zoned.
2. Prepare a five-year capital improvement program (CIP) to identify capital project expenditures. For the preferred growth areas the candidate projects must be consistent with the policies of this plan.
3. Adhere to the overall growth policy as follows:

The City will grow in a fiscally sustainable manner by maximizing efficiencies in the provision of municipal facilities and services, evaluating and making decisions according to the fiscal benefits

⁴ Subpart B, Extension of Corporate Limits of Municipality by Means of Petition and Election, RS 33:151

⁵ To enlarge or contract the corporate limits requires a petition with the assent of a majority of the registered voters and a majority in number of resident property owners, as well as 25 percent in value of the property of the resident property owners.

⁶ The proposed zone of influence coincides with the school district boundaries.

and consequences of growth, and deliberately developing toward a contiguous, compact community form.

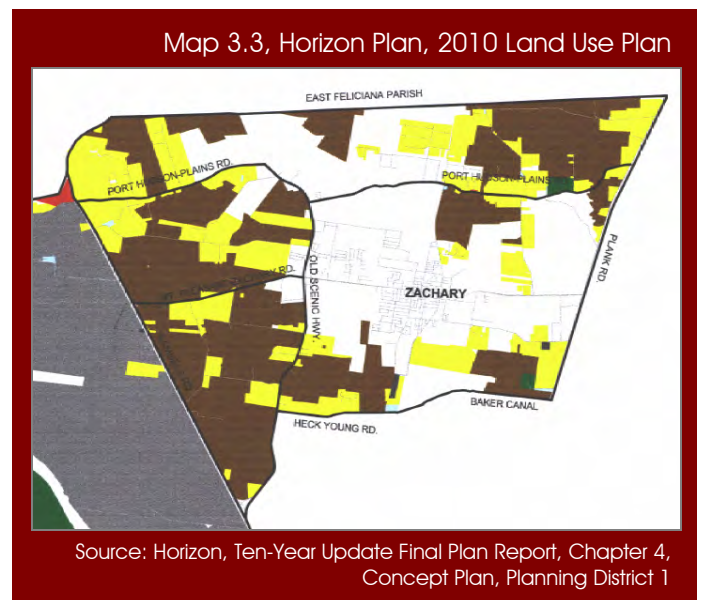
4. Develop a fiscal impact assessment to quantify the benefits or fiscal consequences of development. Essentially, the model should determine whether there will be sufficient revenues generated by development to offset the costs of providing adequate infrastructure and municipal services.
5. Coordinate with East Baton Rouge Parish to re-align the zone of influence to coincide with the boundaries of the Zachary School District, as displayed by **Map 3.2, Proposed Zone of Influence**. Seek to acquire the authority for development approval in this area, consistent with a joint City-Parish land use and transportation plan.
6. Assess the quantified impacts and policy implications of the proposed zone of influence.⁷ An essential prerequisite is to assess the capacity requirements to support the water and sewer demands of the added area, as well as the accompanying demands for police and fire protection services. Seek to collaborate with other providers to create service and no-service agreements, consistent with the policies of this plan and the growth management objectives of the City.
7. Amend the zoning ordinance to include an Agriculture & Forestry (AF) district for areas of the City limits where there is not readily available or adequate infrastructure. The areas are outside of the preferred growth areas. The purpose of this district is to limit urban development until which time as adequate infrastructure is available. Residential use in this district would be limited to large acreages or cluster development.

Methods of Growth Containment

Given the nuances of State law there are limitations for managing growth. The City's zoning and subdivision authority may be exercised only within the City limits, leaving the areas outside the City to the jurisdiction of the Parish. As exhibited by *Map 3.1, Peripheral Development*, there are numerous subdivisions and developments outside of the City limits that benefit by their location within the Zachary School District yet are beyond the jurisdiction – and authority – of the City.








As displayed in **Map 3.3, Horizon Plan, 2010 Land Use Plan**, the land adjacent to the City is all designated Residential Estate/Agriculture (brown) and Low and Medium Density Residential (yellow). These land use designations allow development with little respect to their infrastructure demands or the capacities to support them. As such, unfortunately, they contribute to an ill-advised pattern of growth.

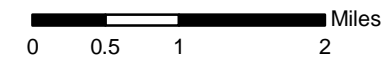
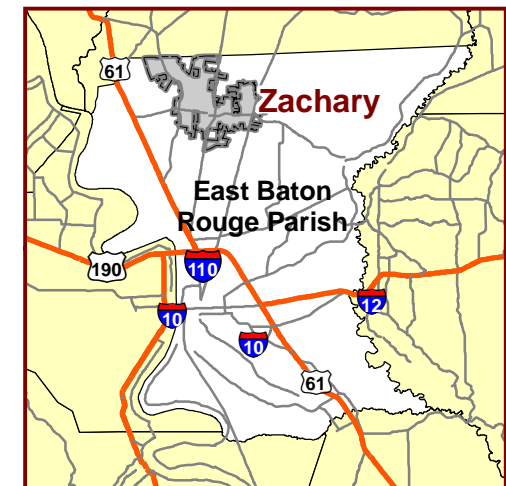
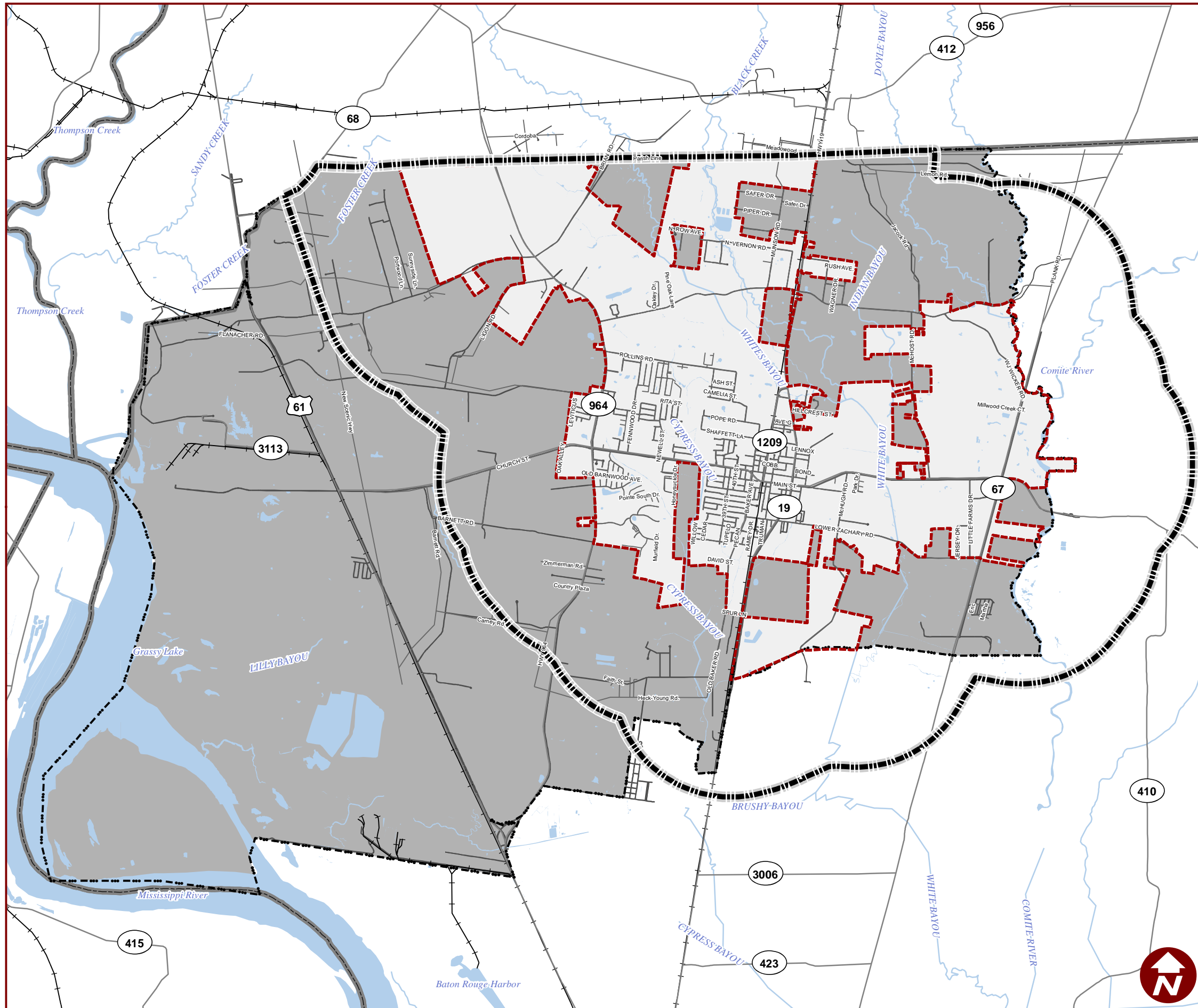
Much of the area around Zachary is zoned "Rural," which, depending on the land use designation, permits low-density residential development on one- (Parish




⁷ "Where the corporate limits of municipalities have been extended or enlarged as hereinabove provided, the annexed territory, the inhabitants thereof, and the owners of property therein shall enjoy as to themselves and their property all the rights, immunities, and privileges granted and enjoyed by the citizens of the municipality to which the territory has been annexed. LA Revised Statutes 33:179

Map 3.2 Proposed Zone of Influence

-  1.5 mile City/Parish Zone of Influence
-  Railroads
-  East Baton Rouge Parish Boundary
-  Major Water Bodies
-  Streams
-  Corporate Limits
-  Proposed Zone of Influence




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zoning - A1), two- (A2), and three-acre (A2.7) lots. Areas that are shown in brown on **Map 3.4, Parish Zoning**, and also zoned "Rural" require one-acre lots, or may be clustered at 4.1 units per acre. Therefore, given the current Parish land use plan and zoning, the area enveloping the City may be developed at auto-urban and suburban densities, with no required public infrastructure systems. Commercial and industrial development designated by deed restriction or plat notation is also permitted, without any apparent nonconforming use provisions for their eventual discontinuance. There are a few required performance measures for pre-existing uses that are intended to minimize nuisances.⁸

The developments around the periphery of the City are allowed to have individual water supplies and sewage disposal units,⁹ in many cases, draining the effluent to open ditches. The use of privately-owned and maintained systems for wastewater treatment is an approach that has often failed in other areas. Further, they exacerbate the problem of uncontrolled growth. In addition to the utility allowances there are no requirements relating to the capacity of Parish roadways accessed by these developments.

There are several strategic approaches for managing development, including:


- ◆ Strict adherence to a growth policy providing that municipal services, such as, but not limited to, water and gas utilities, will not be provided outside the City limits (subject to the criteria of Recommendation No. 5 below).
- ◆ Annexation either by petition and election of property owners or by petition and ordinance and provided:
 - Zoning of the property as Agriculture and Forestry (AF); or
 - Zoning to another district subject to compliance with the City's annexation and utility policies and conformance with the Unified Development Code.
- ◆ A policy requiring annexation as a condition of development and provided:
 - adequate capacity of the City's distribution and collection systems and treatment plans;
 - extension of municipal services to and through the subject property at the developer's expense; and
 - provision for an agreement to offset by way of exaction the City's requisite expenses associated with compliance with LA Revised Statutes 33:179 (annexed territory enjoys all rights, immunities, and privileges enjoyed by the municipality to which the territory has been annexed, e.g. police and fire services and response times).
- ◆ Negotiating non-annexation agreements with property owners subject to compliance with the City's annexation and utility policies and conformance with the Unified Development Code.
- ◆ Collaborate with the City-Parish Planning Commission in the development of a regional development plan, as provided for by law, to ensure harmony of this master plan.¹⁰

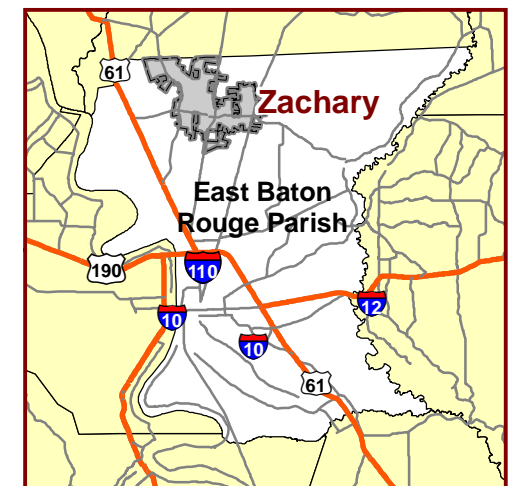
⁸ Section 8.213, R Rural District, re: bufferyards and increased setback with a wall or solid fence between and adjacent to certain defined districts

⁹ Chapter 14, Utilities, City-Parish Planning Commission Unified Development Code

¹⁰ "In preparing the regional development plan, the planning commission shall take account of and shall seek to harmonize the planning activities of federal, state, parish, municipal or other local agencies within the area. In preparing such plan...the regional planning commission may seek the cooperation and advice of the division of administration, of other appropriate departments, agencies and instrumentalities of federal, state, and local government. LA Revised Statutes 33:135, General powers and duties. Furthermore, as it relates to annexing vacant land contiguous to the City limits, the parish council and city council "may establish operating agreements to govern annexation procedures and/or other matters related to growth management issues between and among themselves." LA Revised Statutes 33:172(F)(3)(a)

Map 3.4 Parish Zoning

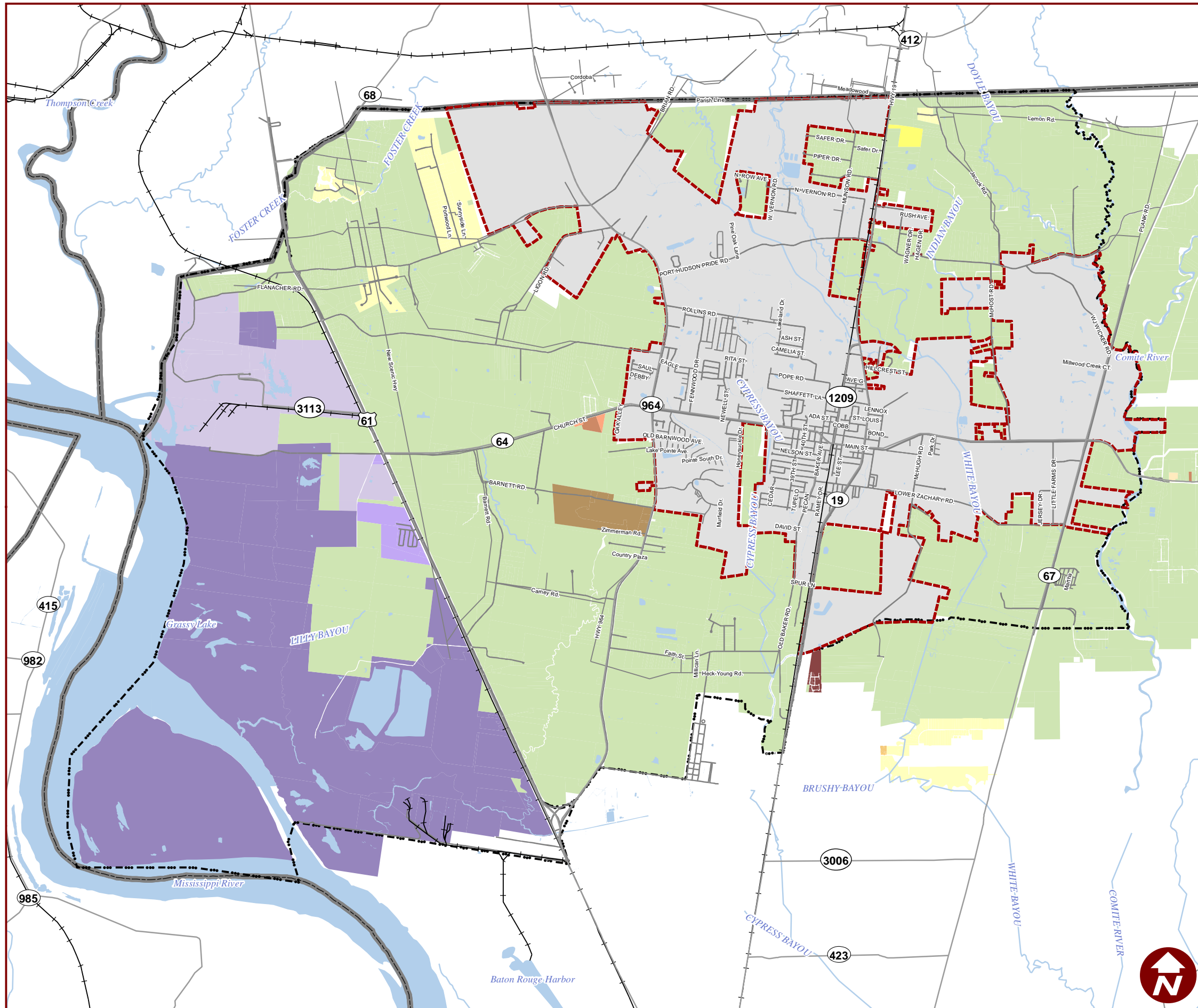
-  A1 - Single-Family Residential
-  A2.7 - Single-Family Residential
-  B1 - Transition District
-  NC - Neighborhood Commercial
-  C2 - Heavy Commercial
-  IA - Industry
-  M1 - Light Industry
-  M2 - Heavy Industry
-  R - Rural
-  SPUD - Small Planned Unit Development
-  PUD - Planned Unit Development
-  Corporate Limits
-  East Baton Rouge Parish Boundary
-  Major Water Bodies
-  Streams



0 0.5 1 2 Miles



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- ◆ Negotiating an intergovernmental agreement with the City-Parish Planning Commission, including:
 - Re-definition of the current one and one-half mile zone of influence to that included in this plan, which matches the Zachary School District boundaries; and
 - Authority to review and approve development proposals either independently or jointly with the City-Parish Planning Commission, subject to development of a joint land use and transportation plan and adoption of joint land development regulations and design specifications; or
 - Amendment of the Horizon Plan and zoning map in a manner that supports and is in concert with the City's growth and development policies.

Based on the projections outlined in *Chapter 1, Introduction & Community Profile*, it is estimated that an additional 4,700 acres will be developed, assuming similar densities to those today. With an added 20 percent for market flexibility, a total of 5,640 acres will be consumed by 2030. There is more than sufficient land within the City limits to accommodate the expected growth during the horizon of this Plan.

Goals

- ▶ Imposition of the City's zoning and subdivision authority to manage the standard of development
- ▶ Harmony of the City-Parish land use plan and zoning with the City's vision for its zone of influence
- ▶ Preservation of the rural character around the periphery of the urbanized and urbanizing area
- ▶ Improved standards for provision of adequate facilities and sustainable public facilities
- ▶ Urbanized development directed to occur within a defined growth area

Recommendations

1. In accordance with State law concerning a regional development plan, request the City-Parish Planning Commission to:
 - Enact an Agriculture district with a minimum lot size of 20 acres as a means for managing the pattern of growth within the City's proposed zone of influence. So as not to "down-zone" the owners of land who are currently zoned for higher density (generally one-, two-, and three-acre lots), encourage the City-Parish Planning Commission to require development clustering, with density bonuses for higher ratios of open space. This is particularly important for the interim period before the City prepares an annexation study and initiates an annexation program; and either:
 - Re-designate the 2010 Land Use Plan and, subsequently, rezone the area within the City's proposed zone of influence for agricultural development, until which time that adequate public facilities and services – as opposed to private water and wastewater systems – are available and may be efficiently provided; or
 - Collaborate with the City to prepare joint City-Parish land use and infrastructure plans, plus adopt joint implementing regulations for the portion of the proposed zone of influence that overlaps the jurisdiction of the Parish.
2. Amend the zoning ordinance to include an Agriculture & Forestry (AF) district for areas that are newly annexed and outside of the preferred growth areas. Upon inclusion in the preferred growth areas, re-designate the zoning according to the appropriate district reflected on the Future Land Use Plan.
3. Adopt a utility extension policy subject to the following criteria:
 - The subject parcel is within a preferred growth area and will not create obstacles to successful implementation of a suitable roadway network consistent with the City's Thoroughfare Plan.

- The land is proposed for annexation and abuts the City's existing utility service areas and can be immediately and efficiently served – or readily served with manageable and affordable capital improvements.
- The land can be adequately served by and funded for municipal police, fire, and emergency medical services, and the City can readily assume the fiscal responsibility for the maintenance of existing roads, street lights, parks, and any publicly-owned facility, for which the fee structure will net a fiscal benefit to the City.
- All public improvements necessary to serve the area proposed for service extension will be constructed and financed in accordance with City standards and policies.
- There is sufficient capacity of the infrastructure systems, i.e. roads and utilities, to accommodate the added development.
- There is a written finding on behalf of the Zachary School District that there are or are planned to be requisite capacities of school facilities to accommodate the added enrollment.
- As determined by the City, the actual fiscal impact of expanding the incorporated area and then providing basic services, maintaining public facilities, and making other necessary public improvements is favorable and sufficiently offsets the associated costs to the City, both near- and long-term.

SAVES (Strategic Analysis: Vision Evaluation System)

Coinciding with this plan is a land use model known as SAVES. This planning tool quantifies the impacts of different land use and growth scenarios to aid in decision making. For instance, the preferred growth areas are located to optimize the efficient provision of services.

4. Amend the SAVES impact model to incorporate the school enrollment zones (elementary, middle, and high school), thereby allowing quantification of the impacts, by enrollment zone, concerning the number of school-age children and required additional classrooms. (Coordination with the school district will be required to calibrate the model.) This will allow the City and School District to evaluate the warrant for and feasibility of development in the context of its impacts on the District. It may also serve as a basis for calculating fair-share impact fees for school facilities, as applicable.
5. Require as a condition for providing municipal utilities, in those cases that adhere to the utility extension criteria above, mandatory development clustering and fulfillment of ordinance requirements for provision of adequate facilities and services.
6. Establish capacity thresholds beyond which proposed development will exceed the limits for adequate facility and service provision.
7. Consider the establishment and imposition of impact fees to ensure new development pays its fair share for drainage, roadways, water and sewer infrastructure, and police and fire protection services that become necessary as a result of such development. The principles of fiscal responsibility and stewardship upon which this plan is based support adoption, provided that they comply with the law in that:
 - they are fair and proportionate to the demands created by the new development;
 - they are used for projects that serve new development; and
 - they are used in a timely manner.

Strategic Annexation

There are both practical and significant policy issues associated with peripheral development. Perhaps the most significant is the inability of Zachary to promote orderly growth in an area for which it has no jurisdiction. Also, the City is limited from expanding its tax base in line with the increasing demands for use of its facilities and services. This is important since those outside the City benefit from access to the

City's parks, libraries, community centers, and, in some instances, City water and gas services, but do not share in the burden associated with constructing and maintaining them. A haphazard pattern of development stretches the City's limited resources and increases its costs for providing services, while burdening the capacities of infrastructure systems.

The areas around the City will most likely continue to develop. This is due to the Parish's current plan, development regulations, and utility policies. It is exacerbated by the City's practice of providing water and gas services to subdivisions outside the City limits. Continuation of this development pattern will slowly impair the small-town character in Zachary and inflict the consequences outlined earlier in this chapter.

There are reasons for annexation other than to accommodate development. Under current circumstances, annexation may be a viable strategy to contain the City's growth and exert control over the zone of influence. Otherwise, development will likely continue in an uncoordinated manner. Therefore, strategic annexation is in the near-term interests of the City before these areas develop. This is particularly important as State law requires concurrence of a certain percentage of residents in order to annex. Therefore, more residents may limit the likelihood of annexation.

State law requires the concurrence of property owners that are the subject of annexation, with the exception of when there are no resident property owners nor registered voters residing in the area, which then requires approval of the Parish. A simple majority of resident owners and registered voters and 25 percent in value of the subject property is required to extend the corporate limits by petition and ordinance. Comparatively, by petition and election, one-third in number and value of the owners of land lying contiguous and adjacent to the corporate limits must concur with annexation. It follows then, that the City's annexation strategy should identify and seek to annex land in the following order:

1. Land for which there are no resident property owners or registered voters residing in the subject area, provided there is concurrence on behalf of the Parish.¹¹ As there is State law requiring rights, immunities, and privileges of those being annexed comparable to those within the municipality, Zachary may be in a better position to provide such accommodations than the Parish. For this reason, the Parish may be inclined to concur.
2. Annexation to enlarge the boundaries of the City by petition and ordinance; and
3. Annexation to extend the corporate limits of land lying contiguous and adjacent to the City by petition and election.

In either of the latter two instances, the City must offer advantages for annexation of land within Parish jurisdiction, e.g. fire insurance rates.

The City should implement a proactive annexation program, which would enable the ability to determine the appropriateness and timing of development, coordinate concurrent provision of adequate facilities and services, and decide the preferred pattern and character of development. The priorities should be as follows:

¹¹ "No ordinance annexing vacant property across parish boundaries shall be valid unless it has first been approved by the parish governing authority of the area to be annexed." RS 33:172A(c)

1. Areas within the “preferred growth areas.”
2. “Enclave” areas that are “at least ninety percent of the boundary of the area to be annexed in common to the boundary of the municipality.”¹²
3. Areas immediately adjacent to or for which access is taken from a major highway corridor or Parish roadway, particularly including:
 - LA 19 to the south and, to a lesser extent, north;
 - On the west side of LA 964 stretching south from the City limits to the zone of influence;
 - LA 67 to the south and, to a lesser extent, north;
 - LA 64 to the west to the zone of influence; and
 - Along US-61 leading to the new Mississippi River crossing near St. Francisville.
4. Prime development areas that are outside of the flood prone areas and within one-quarter to one-half mile of an improved State or Parish roadway.
5. All remaining areas of the proposed zone of influence, coinciding with the boundaries of the Zachary School District.

Goals

- ▶ Expansion of the corporate limits concurrent with the provision of infrastructure
- ▶ Fiscally responsible provision of infrastructure and public services
- ▶ Adherence to a responsible policy for growth management
- ▶ Preservation of a freestanding community state
- ▶ Deliberate annexation to secure the City's long-term planning interests

Recommendations

1. Conduct studies periodically to identify and monitor prime growth areas within the zone of influence, particularly adjacent to major transportation corridors where the City's land use management capabilities are most needed. These studies should consider anticipated infrastructure improvements that may create an opportunity or demand for urban development, such as the new Mississippi River crossing and the proposed diversion canal.
2. Conduct an annexation study to identify properties within the zone of influence that fulfill the criteria stated above. Subsequently, prepare an annexation plan to identify specific properties for incorporation based on research as to the available utilities and infrastructure and existing land use in the area. It should include a service plan identifying the requisite provision of utility infrastructure, as well as public services, i.e. fire and police protection, emergency medical services, waste collection, etc. The analysis must also address the impacts and necessary improvements for parks and recreation areas, library, schools, and administrative office space and staffing.
3. In accordance with State law concerning the annexation of vacant land contiguous to the City limits, adopt a written resolution expressing the intent to annex these described lands, with a certified copy of the resolution submitted to the Parish Council. Such statement of intent may be for the purpose of establishing “operating agreements to govern annexation procedures and/or other matters related to growth management issues between and among”¹³ the City and Parish.
4. Proceed with annexation procedures for contiguous areas that have “at least ninety percent of the boundary of the area to be annexed in common to the boundary of the municipality.”¹⁴ These

¹² LA Revised Statutes 33:172(C)

¹³ LA Revised Statutes 33:172(f)(3)(a)

¹⁴ LA Revised Statutes 33:172(C)

“enclave” areas are naturally subject to annexation for the purpose of developing in a logical, contiguous manner.

5. As a condition of annexation, request a written waiver of the State-required, six-month waiting period to allow a zoning designation different than that assigned by the City-Parish Planning Commission.¹⁵ Alternatively, six months after the annexation of land or, in the case of a property owner application for rezoning within the minimum six-month period after annexation, amend the zoning classification to the Agriculture & Forestry (AF) district or consistent with the Future Land Use and Growth Plan.
6. Strengthen the City’s nonconforming regulations to establish ordinance provisions applying to the discontinuance of pre-existing uses given certain criteria and standards. This is to enable the City to eliminate nuisance-bearing uses that exist prior to annexation.
7. Amend the Future Land Use and Growth Plan to determine the appropriate designation concurrent with any changes to the growth boundaries or areas subject to annexation.

Achieving an Efficient Development Form








Growing smart means to grow in a contiguous pattern with provision for infill development on vacant or underutilized parcels, as well as redevelopment of obsolete uses and buildings. The purpose of a compact development pattern is to grow in a logical and efficient manner, which helps to combat the impacts of sprawl. While the City itself has not experienced a significant amount of sprawl, there are signs of this in the adjacent areas (see *Map 3.1, Peripheral Development*) and a number of development inquiries in the peripheral areas that, if not well managed, would establish this pattern. For this reason, it is timely and important for the community to establish its growth and development policies as a means to realize a fiscally responsible and well-managed pattern of future development.

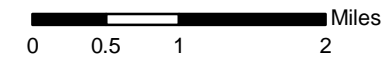
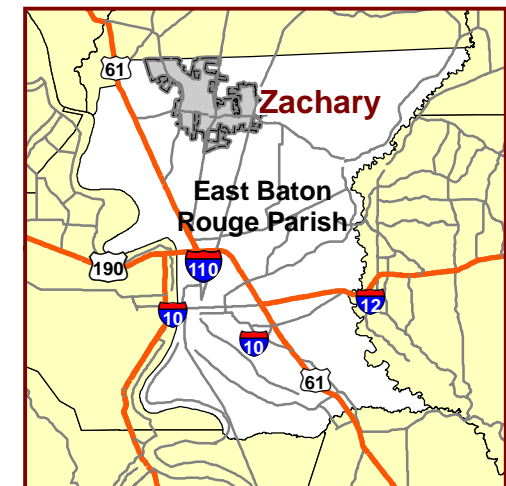
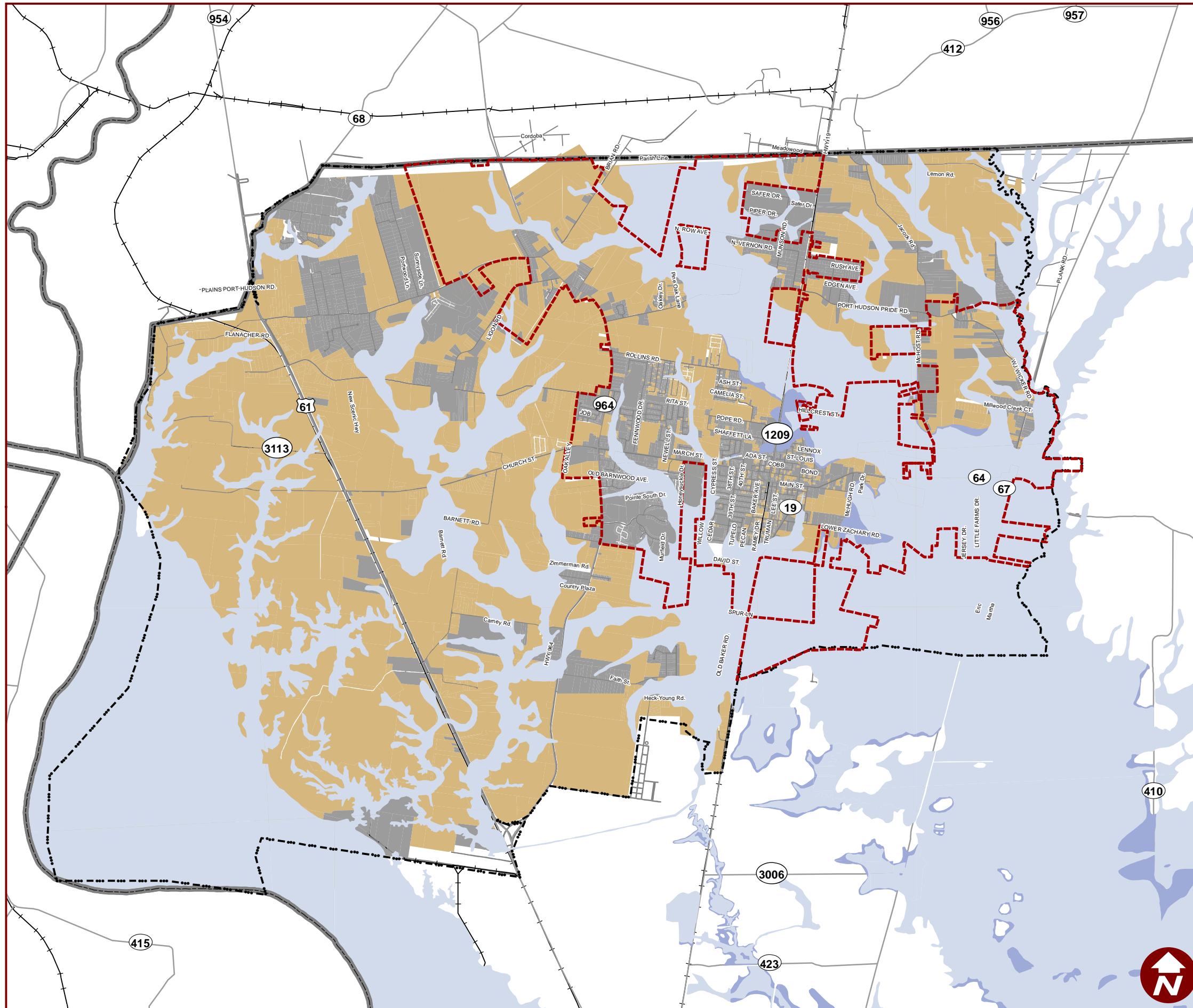
Haphazard growth is highly inefficient. Costs associated with the provision of both capital and social infrastructure are much higher than they are for more contiguous patterns of development. This is particularly relevant when the community is confronted by limited resources and increasing demands for services. In addition to its fiscal consequences, sprawl often degrades environmental resources by prematurely committing rural areas to the impacts of urban development. Phased and orderly growth mitigates this situation by comprehensively addressing the impacts of development on the natural systems. Piecemeal and sporadic development is detrimental to any type of comprehensive framework.



As illustrated by **Map 3.5, Developable Areas**, there are large expanses of developable land both within and adjacent to the City limits. Some of these areas are more serviceable than others, meaning there are utilities (water, gas, and wastewater) and services (police and fire protection) that are readily available and which may be fiscally prudent to provide. In these instances, where there are sufficient capacities, utilities may be extended and services may be offered in a timely and efficient manner. The areas that are feasible to provide facilities and services are those that are the “preferred development areas.” In other cases, where there are development constraints (e.g. land within the floodplain, utilities are unavailable, and/or there is insufficient capacity to serve new development), there must be policies as to the timing and availability of adequate facilities and services. These areas are “reserved” for future growth to occur when there are facilities and services available or other prudent agreements are made and accepted by the City.

¹⁵ LA Revised Statutes 33:4725.1, Zoning of annexed property

Map 3.5 Developable Areas

-  Developable Area
-  Developed Area
-  100-Year Floodplain
-  500-Year Floodplain
-  Corporate Limits
-  Proposed Zone of Influence
-  East Baton Rouge Parish Boundary




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Exhibited by **Map 3.6, Utility Services Areas**, are the effective service areas of the City's water and gas distribution lines and wastewater collection lines. For general planning purposes, there is a one-quarter mile buffer adjacent to each line to reflect its service reach. This map illustrates the areas for which the City already has available infrastructure to serve new development, provided there is sufficient line and treatment capacity available. Generally, there are water, gas, and wastewater lines within the main body of the City. Water lines extending to the east, gas lines extend to the west, and both water and gas lines extend to the southwest. Some of the service areas are within the current City limits, whereas others encompass unincorporated areas of the proposed zone of influence.

Based upon the availability of utility infrastructure, there is a logical sequencing of future development with priorities in descending order based on:

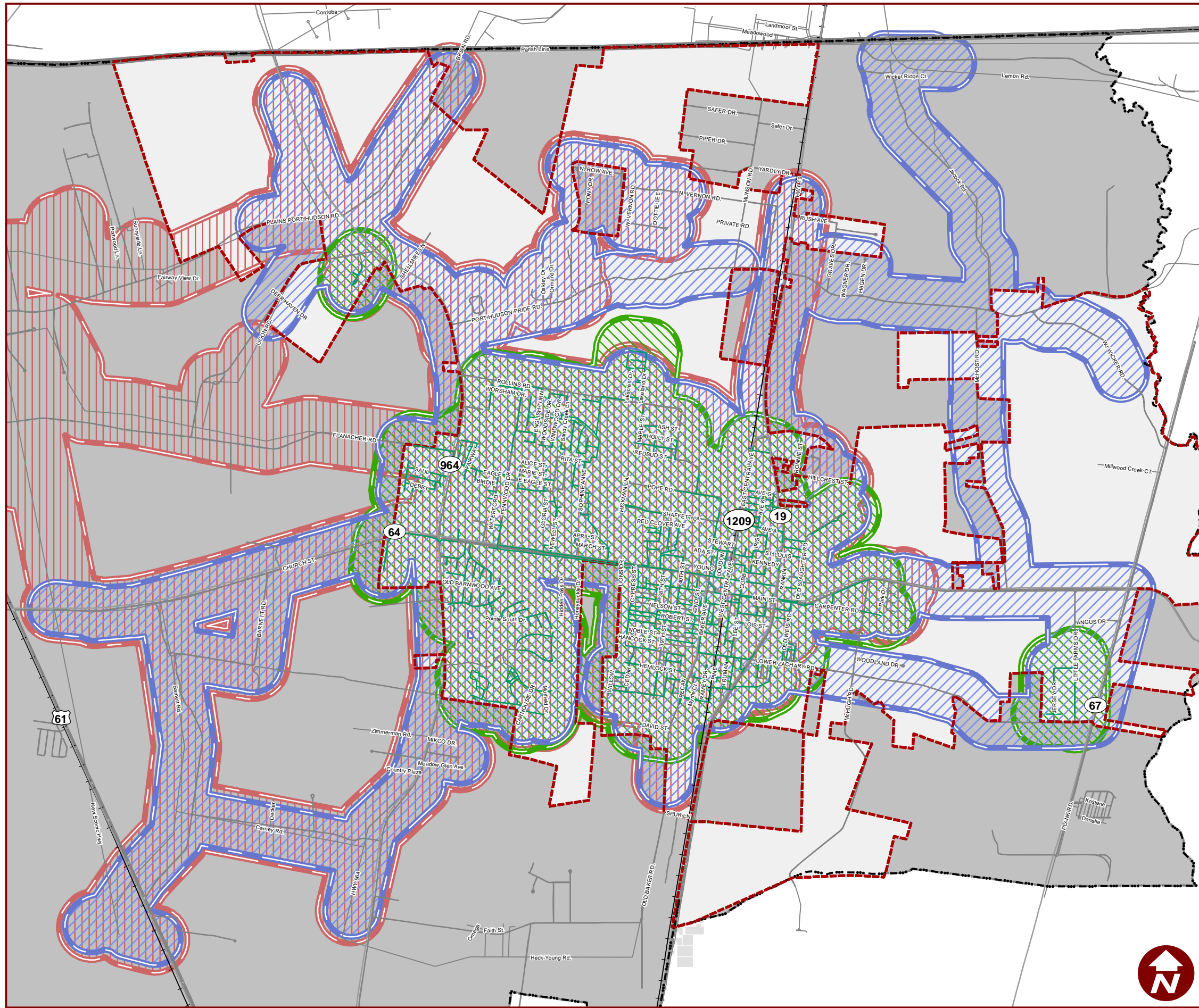
1. Areas that are within the current City limits where:
 - there is water, wastewater, and gas infrastructure available; or
 - there is water and gas infrastructure available, but the areas are not within the reach of the current wastewater infrastructure, thereby requiring extension.
2. Areas that are outside of the current City limits and within the proposed zone of influence where:
 - a. there is water and gas infrastructure available; or
 - b. there is water or gas infrastructure available; or
 - c. there is water or gas available, but the area is constrained by the extents of the 100-year floodplain.

Given the above considerations as to the availability of utilities and whether the areas are within the current City limits or the proposed zone of influence, the timing of proposed future development is reflected in **Map 3.7, Growth Sequencing Plan**. This map reflects five phases of future development, which correspond with the above considerations. These are further organized to include the following:








- ◆ The *Preferred Growth Area* includes 1(a), 1(b), and 2(a) above, which includes those areas within the City limits or immediately adjacent to the City limits (within the proposed zone of influence) where there are utilities (water, gas, and some wastewater) available (or readily available). The priorities as to the timing of development are as listed above.
- ◆ The *Reserved Growth Area* includes 2(b) and 2(c) above. These areas have limited availability of water and gas infrastructure, do not have wastewater service, and, in the case of 2(c), are constrained by the 100-year floodplain. These areas are reserved until which time as adequate infrastructure and services are made available.

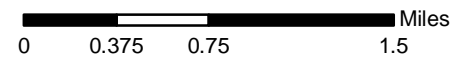
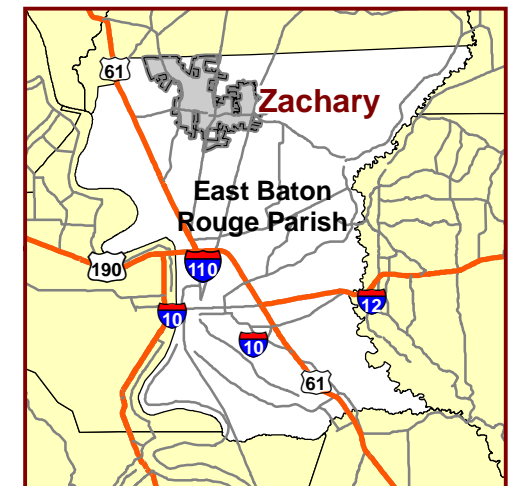
In some instances, there may be development requests for which facilities and infrastructure are proposed to be extended without City participation. Irrespective of the means of providing service, there remain long-term implications for the City and its pattern of growth. Therefore, if development is proposed within the secondary or tertiary portions of the preferred growth area or in the reserved growth area, the City may consider the following principles to guide their decisions:



1. The decision to provide municipal services will include, among others, the location of the subject development relative to:
 - existing development; and
 - the area of existing utility services; and
 - the City limits.
2. Capital infrastructure will be directed to support a logical sequencing of development. Generally, growth will be encouraged in the following order of priority:



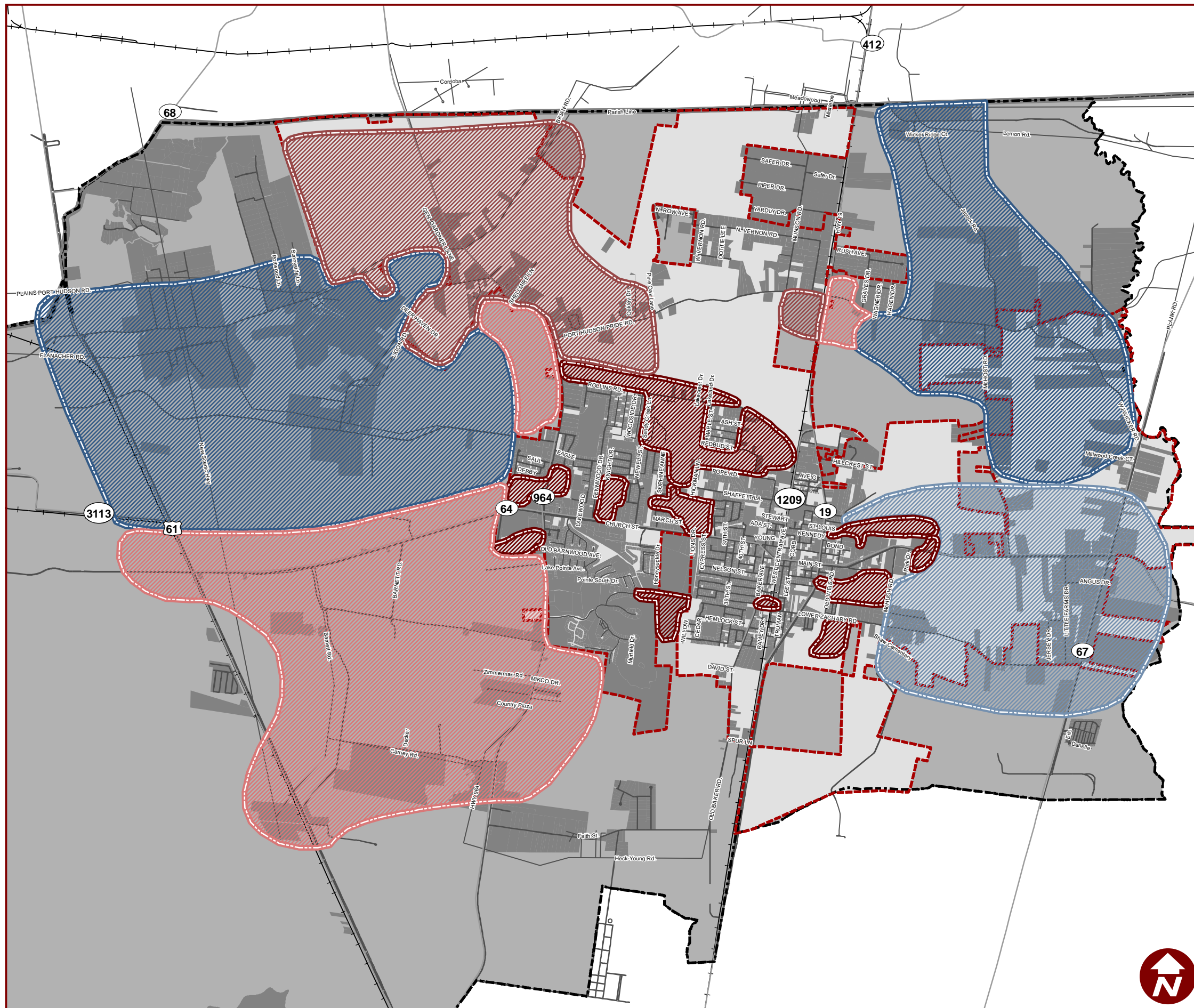
Map 3.6 Utility Service Areas

-  Sewer_Pipe
-  Water Coverage
-  Sewer Coverage
-  Gas Coverage
-  East Baton Rouge Parish Boundary
-  Corporate Limits
-  Proposed Zone of Influence




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Map 3.7 Growth Sequencing Plan



Preferred Growth Areas

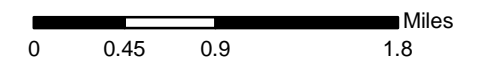
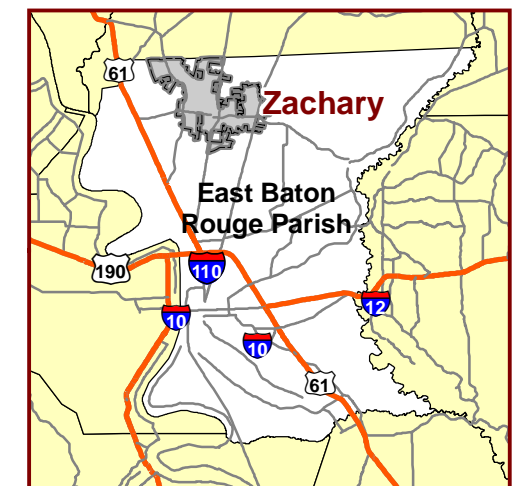
- Primary
- Secondary
- Tertiary

Reserved Growth Areas

- Primary
- Secondary

Boundaries & Infrastructure

- Corporate Limits
- Proposed Zone of Influence
- East Baton Rouge Parish Boundary
- Developed Area



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- areas with existing infrastructure and service capacity;
 - areas that can readily and efficiently be served with adequate infrastructure and for which adequate capacity exists or is scheduled in the capital improvement program;
 - areas that may be feasible to extend facilities and services via development agreements and provide a net fiscal benefit to the City; and
 - areas that are less efficient to serve with public infrastructure and municipal services.
3. Properties within the *Preferred Growth Area* shall first be annexed into the City limits before development occurs and facilities and services are provided.
 4. Properties within the *Reserved Growth Area* should be considered for annexation provided:
 - they remain within the reserved growth area; and
 - they are zoned Agriculture & Forestry (AF) until which time as they may be feasible for development.
 5. The *Reserved Growth Area* will have rural levels of services. Development that exceeds a rural level of service is not permitted.
 6. Development will strictly adhere to:
 - the policies of this plan, as may be amended from time to time; and
 - the requirements and standards of the City's land development regulations.
 7. Urban infrastructure improvements and public services will be extended first to the primary *Preferred Growth Area* and subsequently to the secondary and tertiary areas. They shall not be extended to serve the *Reserved Growth Areas* without a plan amendment to re-designate the area, as applicable and appropriate, to a preferred area.
 8. The City will seek to employ best management practices for the purposes of conservation as a means to maximize the efficient use of its resources.
 9. Development may occur within the *Reserved Growth Area* provided it is clustered and does not exceed the densities set forth by this General Plan.
 10. Sensitive resources including floodplains, wetlands, riparian areas along stream channels, hillsides, and valued view sheds will be protected and preserved within all areas.

In coordination with the above utility extension policies and annexation priority areas, it is advised to proceed with the annexation of the proposed zone of influence. The City is interested in annexing this area (see *Map 3.2, Proposed Zone of Influence*) to protect its best long-term interests, as well as those of the Zachary School District. This area generally extends west to the Mississippi River encompassing the S.R. 61 corridor. It largely aligns with the one and one-half mile zone of influence to the south, east, and northeast. The East Baton Rouge-East Feliciana Parish boundary establishes the northern boundary. This plan advocates the annexation of this area provided:

1. Annexation occurs in compliance with the policies of this plan.
2. The long-term pattern of growth is managed in a fiscally responsible manner, meaning that annexation will provide a net fiscal benefit to the City or there is a determination by the City Council that annexation is warranted and prudent for strategic reasons.
3. To maximize the use and efficiency of existing City infrastructure, growth will be directed toward parcels where there is – or may be – readily available utilities.
4. Future growth is coordinated with the provision of municipal infrastructure and public service investments such that the pattern and timing of development will be sustainable for the City over the long term, both fiscally and from a service capacity standpoint.
5. The City will consider the use of fiscal impact analyses to assess the projected costs of providing services and weigh them against the anticipated revenues of each annexation proposal, whether initiated by the City or a property owner. Fiscal impacts will be assessed on a multi-year timeframe,

recognizing that first-year costs may exceed revenues because of up-front service extension costs and capital expenditures, as well as the lag time before initial collection of taxes and fees.

6. Regulatory provisions are in place prior to or concurrent with annexation to effectively control the timing of development, the requisite extension of public facilities, and the quality character of development.

Goals

- ▶ Promotion of responsible, well-managed development via adopted policies and regulations
- ▶ A progressive, outward pattern of development sequenced in accordance with infrastructure availability
- ▶ Innovative land development techniques to protect sensitive areas
- ▶ Flexible development options allowing streamlined development
- ▶ Allowances and incentives for infill development and redevelopment

Recommendations

1. Conduct necessary studies concerning available facilities and capacities and the requirements for provision of services to clearly define the boundaries of the *Preferred Growth Areas*. The areas reflected in *Map 3.7, Growth Sequencing Plan*, are generalized based on their proximity to water, gas, and wastewater services.
2. Establish decision criteria to guide requested deviations of the *Preferred Growth Areas* boundaries, including, among others:
 - the boundaries may be altered if there is a showing of a net fiscal benefit to the City, meaning sufficient revenue to offset the required expenditures for extending infrastructure and municipal services;
 - The boundaries may be amended if there is an equivalent area of contraction; and
 - All required public infrastructure facilities will be installed at the expense of private development, and there is a showing that the infrastructure fulfills the City's adequate facility requirements.
 - Zachary may benefit from annexing adjacent lands beyond existing city limits, in the near future, for purposes of economic development and to ensure quality development in the school district service area.
3. Consider annexation petitions of property owners within the *Preferred Growth Areas*, with due regard as to their designation as primary, secondary, and tertiary areas.
4. Amend the land development regulations to incorporate a streamlined approval process for compliant infill and redevelopment applications. Paramount to an expedited review process is clearly written standards to ensure compatibility with the context of the surrounding neighborhood environs.
5. Create incentives such as permit streamlining, fee waivers or deferral, and infrastructure cost-sharing for builders and organizations that provide infill construction on vacant parcels in a manner that complements the surrounding neighborhood.
6. Establish design guidelines that address building materials, roof pitch, façade treatment, appurtenances, proportional dimensions, and other elements to ensure that new infill and rehabilitated units maintain the neighborhood character.
7. Designate the areas adjacent to the floodplain as Suburban Residential, which allows greater variability as to the provision of open space and management of stormwater by natural means. The

preferred method of stormwater management is to retain the area of floodplain as open space and to de-channelize the stream.

8. Incorporate provisions into the City’s floodplain standards restricting fill within a special flood hazard area unless the effect on water storage and water quality is fully mitigated with compensatory storage.
9. Amend the subdivision regulations requiring the following design hierarchy of drainage plans:
 - minimize impervious surfaces;
 - attenuate flows by use of open, vegetated swales and natural depressions in common areas, and preserve existing natural stream channels;
 - infiltrate runoff on-site;
 - provide stormwater retention structures;
 - provide stormwater detention structures;
 - provide velocity dissipation structures or channel design; and
 - construct storm sewers.
10. To achieve the recommendation for “low impact development” outlined in *Chapter 2, Community Character & Housing*, incorporate improved stormwater standards into the subdivision regulations, as follows:
 - Avoidance: Cluster and planned development; protective measures for floodplains, drainageways, and wetland resource protection; and positive surface drainage are avoidance techniques. Conventional residential subdivisions that do not use cluster or planned options should contribute to regional stormwater facilities.
 - Minimization: Minimizing the impacts of connected impervious surfaces may be accomplished by water gardens, rain barrels or cisterns, pervious pavement, vegetated swales (bioswales), swale blocks, and green roofs.
 - Mitigation: Mitigation is required prior to discharging stormwater into a stream or watercourse, the extent of which relies on the degree of avoidance and mitigation techniques used. Best management practices (BMPs) include: retention with vegetative uptake, wet basins, wetland basins, and dry basins.



Best Management Practices

Road Ditch Bio-swale

Rain Garden

Pervious Pavement

Upgrading Public Safety Services

New development will create an increased demand for public safety services. To keep pace, the City must commit to gradual expansion of its Police and Fire Departments and invest in new facilities, equipment, and staffing to ensure adequate service capabilities, responsiveness, and geographic coverage in coming years. Comparisons against national benchmarks confirm ongoing staffing needs for both police and fire services.

Police Services

The Police Department operates out of its headquarters located at 4510 Main Street. The facility consists of administrative offices for the Chief, Deputy Chief, and detectives; a property/evidence room; two holding cells; a reception/secretarial area; and the court room. The Department's training officer shares space in the evidence room, for which future space is needed to create a usable classroom setting for officer training activities. Upon relocation of the Zachary School Board to their new facility, the current City Hall annex could offer suitable space for the Municipal Court. This would, in turn, free up much needed space in the police headquarters that may be used for a training classroom, juvenile office, and other offices and on-site storage.

The Department currently has 30 commissioned, full-time officers, 10 dispatchers, and 20 reserve officers. There are two secretaries, one of whom is a commissioned officer and the other a records clerk. The service area is now the City limits, although there is a future potential for a mutual response agreement for the Zachary officers to respond to incidents throughout the northern part of the Parish. As the community continues to grow, the Department sees the need for officers devoted to juveniles, crimes against the elderly, and identity theft, which would necessitate additional office and ancillary space. Other needs of the Department include housing for its K-9 unit, a City-owned and managed shooting range (versus using the East Baton Rouge Parish Sheriff's Office range), and a west side substation. With the main station located on the east side of the railroad tracks, a new substation would reduce response times and provide added space for increased staffing.

The Department will need to continually upgrade its vehicle fleet, particularly equipping each of its vehicles with laptop computers, radars, and cameras. There is one equipped vehicle per shift being used at this time. A special response unit may also be needed to adequately respond to special instances of crime in the City.

Table 3.1, Police Officer Staffing Needs

Year	Population	Officers per 1,000 persons	Officers	Additional Officers Needed
2000	11,275	2.4	27	--
2005	12,210		29	--
2010	15,023		36	6
2015	17,228		41	11
2020	19,433		47	17
2025	21,638		52	22
2030	23,843		57	27

Source: Crime in the United States, Uniform Crime Reports, Federal Bureau of Investigation; Kendig Keast Collaborative

A survey conducted by the FBI of cities with a population between 10,000 and 24,999 showed an average of 2.4 full-time law enforcement officers per 1,000 citizens (Crime in the United States 2002, Uniform Crime Reports, Federal Bureau of Investigation). Based on a current population estimate of 13,900 persons, the Zachary Police Department should have 33 full-time law enforcement officers. Therefore, based on the staffing of 30 commissioned officers, the City

presently needs three more officers. To maintain this standard to meet increasing future service demands, the City will need to follow through with the necessary budget resources to hire additional employees concurrent with population growth. As displayed in **Table 3.1, Police Officer Staffing Needs**, the City will need a total of 57 officers to support a 2030 population of 23,843 persons, meaning the Department will need to nearly double (27 additional officers) its current staffing.

Adopted April 5, 2010

Fire Protection Services

The main station for the Zachary Fire/Rescue Department was built in 1994 and it is located at 4525 Main Street, across the street from City Hall and the Police Department. This station is the main station for the department, which houses the administration, fire training, fire suppression, and a Parish-manned Advanced Life Support (ALS) ambulance. The Department operates a second station located at 2250 East Flonacher Road (Station 82). Per shift, the main station is manned by an Assistant Chief, Captain, and two firefighters, while Station 82 is manned by a Captain and two firefighters.

The Fire Department presently consists of 22 full-time employees, including a Fire Chief and Deputy Fire Chief, three Assistant Chiefs, six Captains, 10 career firefighter operators, and 20 volunteer firefighters. The department recently created a pilot program for volunteers allowing them to serve a 12- or 24-hour shift, allowing them to have an extra firefighter during the daytime hours or two or three additional firefighters at night. The service area for the Department is the City limits and the outlying areas of the Parish, extending west to the Mississippi River, north to the Parish line, east to the Comite River, south to Irene Road (abutting the Alsen/St. Irma Lee Fire District), south along Plank Road (abutting the Brownsfield Fire Department), and south along LA 19 to the Baker Fire Department. The area outside the City limits will be serviced by the new Fire District No. 1, relieving the City from providing services within an expanded area without requisite funding. The Department has a mutual response agreement with East Baton Rouge Parish, including each of the districts within the Parish.

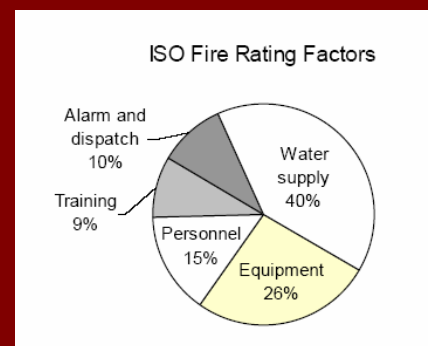
The Department is equipped with five fire engines, two service units, one Basic Life Support (BLS) ambulance, one grass fire truck, one hose tender, one tanker, a 16-foot rescue boat, one truck for an Assistant Chief, and vehicles for the Chief and Deputy Chief. An identified need is for a ladder truck, which will necessitate additional personnel to operate it. The City continues to evaluate future plans for possible locations of additional stations to the east, north, and northwest part of the City. There is also discussion of and a desire to operate an Advanced Life Support (ALS) ambulance with in-house paramedic firefighters rather than relying on the East Baton Rouge Parish Emergency Medical Service (EMS) to transport and operate this service.

Since 1995, the Department’s emergency call volume has increased from 939 calls to a high of 1,807 calls in 2006. Thus far in 2007, the Department has responded to 1,026 calls, putting it on pace for a similar call volume to that of last year.

The Department has an Insurance Services Office (ISO) rating of 2 within the City and 4 within the outlying areas. ISO bases its rating on a scale of 1 to 10 with 1 being the best and 10 being considered

Insurance Services Office (ISO) collects information on public fire protection and analyzes the data using a Fire Suppression Rating Schedule (FSRS). ISO assigns a Public Protection Classification (PPC) from 1 to 10. Class 1 represents the best public protection and Class 10 indicates less than the minimum recognized protection.

By classifying a community's ability to suppress fires, ISO helps communities evaluate their public fire protection services. The program provides an objective, country-wide standard that helps fire departments in planning and budgeting for facilities, equipment, and training. And by securing lower fire insurance premiums for communities with better public protection, the PPC program provides incentives and rewards for communities that choose to improve their firefighting services.



unprotected. To receive this rating, the Fire Department is evaluated on the quality of fire equipment and personnel, water availability, and proper communications, among other specific criteria. There is concern with the formation of Fire District No. 1 that the fire insurance rating of residents within the outlying

areas will increase from the City's ISO rating of 4 to a rating possibly as high as a 10. If this occurs, it is likely that there will be increased pressure for the City to annex these areas to seize a lower insurance rating.

Table 3.2, Fire Department Staffing Needs

Year	Population	Firefighters per 1,000 persons	Firefighters	Additional Career Firefighters Needed	Additional Volunteer Firefighters Needed ¹
2000	11,275	1.6	18	--	--
2005	12,210		20	--	--
2010	15,023		24	2	2
2015	17,228		28	6	5
2020	19,433		31	9	8
2025	21,638		35	13	11
2030	23,843		38	16	15

¹ Assumes an equal proportion to the current ratio of career to volunteer firefighters
 Source: National Fire Protection Association (NFPA); Kendig Keast Collaborative

The National Fire Protection Association (NFPA) publishes data on career and volunteer firefighters across the nation. NFPA conducted a survey of fire departments for U.S. fire experience. The survey includes data pertaining to a ratio of career

firefighters per 1,000 inhabitants. These rates are based on data reported by the NFPA and do not reflect recommended rates or a defined fire protection standard. However, they do provide information for comparisons with fire departments in similar sized communities. According to the survey of fire departments protecting a population of 25,000 and 49,999 residents, which is within the range of estimated population within the Department's service area, the median ratio of career fire fighters (those who work 52 to 60 hours per week) per 1,000 people was 1.60. Based on an estimated current population of 13,900 persons, Zachary should have 22 career firefighters, which is consistent with their current staffing. As displayed in **Table 3.2, Fire Department Staffing Needs**, a population of 23,843 in 2030 will require a total of 38 firefighters, equating to 16 additional career and 15 additional volunteer firefighters. This assumes a consistent proportion of career to volunteer firefighters to that of today. It is important to note, however, that the rates may differ due to variations in local circumstances and fire protection policies.

Goals

- ▶ Reliable, cost-effective public safety services that assure the security of residents and businesses
- ▶ Provision of adequate space, equipment, training, and funding to sustain quality safety services
- ▶ Increased staffing commensurate with greater service demands and service areas
- ▶ Expanded range of services and specialties to fulfill the public safety mission
- ▶ New stations and sub-stations to improve response times and ISO ratings

Recommendations

1. Continue a gradual, phased expansion of Zachary Police Department and Fire Department staffing in a way that is affordable to the City, but also is responsive to any shorter-term crime, public safety, and property protection concerns.

2. Anticipate and be prepared to address any Police Department facility and/or equipment needs that are necessitated by increased staffing. The department's existing space is becoming increasingly constrained, which may be improved by expanding to the City Hall annex that is being vacated by the Zachary School Board. Current needs identified include: training classroom; officers and offices for specialty services such as juveniles, crimes against the elderly, and identity theft; City-owned shooting range; a west side substation; and fully equipped units with radar, cameras, and mobile computers.
3. Periodically monitor future needs for additional fire station sites or upgrades to existing stations in order to sustain and improve levels of service, especially as development continues and land use patterns shift over time. The Department has identified the following needs: ladder truck and associated personnel, Advanced Life Support (ALS) ambulance and in-house paramedic firefighters, and any future stations and associated staffing and equipment.
4. Explore the technical requirements and potential cost of incorporating additional technology tools into fire and police practices (e.g., having access to City mapping information, via on board laptops, while en route to a fire or crime incident to view the layout and conditions of the subject property and surrounding properties, as well as fire hydrant locations and pressure in the area).
5. Continue to pursue improvement of the City's Insurance Services Office (ISO) ratings within and outside of the City. Lowering the ISO rating results in reduced insurance rates in addition to the benefits of improved response and, thus, the protection of life and property. Consideration should be given to capital projects that help to improve the ratings, including increased fire flows, looped water systems, new hydrants, and a generally improved water supply.
6. Periodically conduct a utility impact and rate study to determine the requisite fees to fully offset the assignable costs associated with providing municipal facilities and services across an expanded service area. In the case of fire protection services within areas outside of the City limits, whether within or outside of the planned Fire District No. 1, establish a rate structure that fairly compensates the City for provision of these services and the associated costs for maintaining an ISO 4 rating.

Community Form: State and Scale

Zachary is a freestanding community by way of its separation from other communities and the surrounding rural character. It has a naturally identifiable edge that forms an identity of the community. This is quite different from a composite community which occurs when communities grow together no clear edges and a blurred individual identity.

Zachary's freestanding status is threatened by development occurring around the edges of the City limits. There are now several subdivisions that have sprung up around the fringes of the community. This pattern will eventually blur the

The current freestanding form (top illustration) of Zachary is at risk of blending with the exurban areas of Baton Rouge to become a composite community (bottom illustration) without distinctiveness between communities. Land use and growth policy decisions must be established to defend the community's character and identity.



edge of Zachary leaving only a welcome sign to distinguish it from the larger Baton Rouge area. Without proactive planning to avoid such inevitable occurrence, the community's identity will further erode over time.

Creating a permanent identifiable edge through clearly defined gateway improvements, preservation of permanent open space, and strict protection of the rural character will collectively form an "edge," thereby giving Zachary form and definition. Sporadic development stretching outside of the City limits blurs the entrance and sense of arrival into the community. Controlling both the pattern and type of development in these areas will help to form a positive first impression and signify a formal entrance into the community.

While the City does not have control over the land use and growth policies of the Parish, it has the discretion of forming its own definitive boundary, thereby allowing it to maintain a freestanding community form. Doing so will require the near-term policy and regulatory decisions advocated by this plan to define the limits of urban growth.

Chapter Four

Thoroughfares & Public Transit

Although traveling by car is the predominant form of mobility in Zachary today, planning for the future must account for an interconnected system of streets, sidewalks, and bikeways and pathways with both near- and long-term planning to accommodate high capacity transit. Incremental development of the system in accordance with a comprehensive, multi-modal transportation plan will lead to efficient movement of people and goods within Zachary and throughout the metropolitan area.

The focus of this chapter is five-fold, addressing:

1. **Thoroughfare development.** Preservation of rights-of-way concurrent with development is a priority to ensure an adequate street network. This includes development both within the City, as well as within the zone of influence. It also includes the development of “complete streets” meaning their suitability for all modes of transportation – walking, bicycling, transit, and vehicular movement.
2. **Traffic management.** In order to provide for an efficient movement of vehicles, the traffic carrying capacities of area roadways must be preserved. This relates to the use of land adjacent to the City’s corridors, as well as their means of access. It also relates to the design of roadways.
3. **Pedestrian mobility.** There must be an increased emphasis on pedestrian improvements to safeguard the community’s small-town feel and quality of life. This includes sidewalks along area roadways, safe and accessible crossings, and provisions for on-street bike lanes and off-street trails and pathways.
4. **Corridor appearance.** The community’s corridors offer an opportunity to establish a positive first impression of Zachary. The design and appearance of the roadway, as well as the properties that about it, are of essential importance to enhance community aesthetics and contribute to a quality visual environment.
5. **High capacity transit.** As the community continues to grow and the need for alternative transportation increases, provisions must be made for expansion of public transit. This may involve expanded bus routes or may potentially include a fixed investment.

A current challenge in Zachary is its limited thoroughfare network. Although this is common for small, growing communities, the adequacy of the transportation system is essential for the community to be economically healthy and sustainable. Presently, for instance, the crossroads of LA 19 and LA 64 are becoming increasingly problematic as development occurs and traffic volumes increase. As a result, the level of service is deteriorating and travelers are encountering congested conditions or choosing alternative routes. In some areas, this has caused “cut-through” traffic, thereby increasing traffic volumes on local streets that are not designed for it. Among other options, such as Transportation System Management (TSM) measures, resolution may warrant reconfiguration of existing streets and traffic flows coupled with expansion of the road network. These and other mobility solutions are presented in this chapter.



Bicycling and walking are vital components of the transportation system. However, due to noncontiguous development, segregating land uses, and rural, “non-curb” street sections, the existing pedestrian system is discontinuous and largely dysfunctional. Provisions for improving the pedestrian infrastructure are outlined in this chapter. Additionally, the relationship between use patterns and walkability is explored, with corresponding recommendations.

This chapter is coordinated with each of the other elements of this plan. For instance, the transportation system has a strong influence on the pattern and timing of development and, thus, warrants coordination with the land use and growth policies. In turn, the future land use plan and policies outlined in *Chapter 2, Community Character & Housing*, help determine the necessary infrastructure to meet the future mobility needs. The transportation system is vital to the movement of goods, thereby having direct influence on the community’s economic development (see *Chapter 7, Economic Development*). Businesses seeking to locate or expand are interested in the access to and within the community and, in the case of a major industry, proximity to the regional and state-wide roadway system. Transportation arteries provide opportunities for linear connections via sidewalks and trails, which complement the parks and recreation system (see *Chapter 6, Parks, Recreation, & Open Space*). The location, design, and capacity of roadways also determine the type and character of development. At this early stage of its development, Zachary has an opportunity to establish a highly functional street system that contributes to its small-town character and quality of life.

Purpose

The purpose of this chapter is to plan for the long-range transportation needs of the community. This involves the preservation of rights-of-way for thoroughfare system development, as well as coordinating improvements and initiatives for all other modes of transportation. This chapter addresses the means for developing an adequate street network to collect, distribute, and convey traffic within and through the community, while also providing for development of pedestrian and bicycle infrastructure, public transportation, and systems for goods movement.

Issues and Opportunities

This chapter focuses on the issues that must be addressed for the community to achieve its vision for the future transportation system. The origination of these issues was through the input of community residents during the early stages of the plan development process. These comments were supplemented by the observations and professional research of City staff and the consultants.

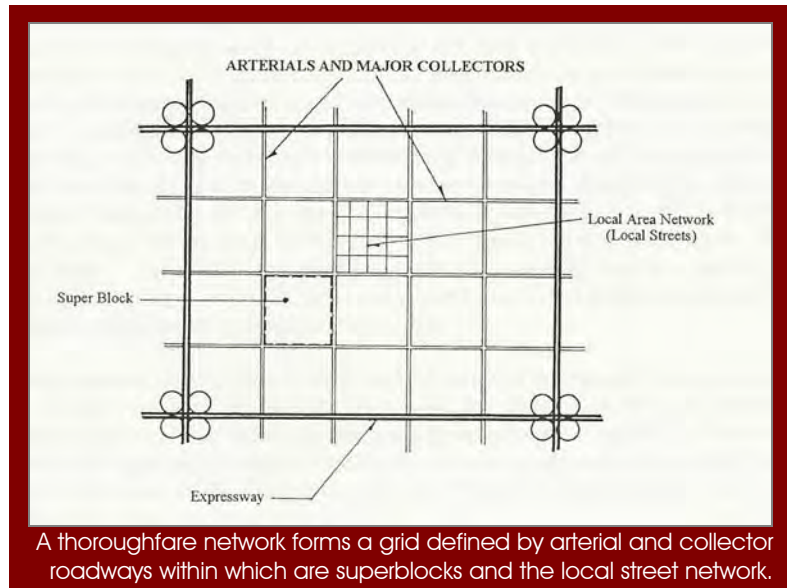
Thoroughfare Development

The basic transportation system is formed by a network of streets, each having a different functional role and designed traffic carrying capacity. Each street segment contributes to the interconnectivity of the network. Without a continuous system, there are unnecessary interruptions that divert traffic movements onto streets that are not designed to carry an increased volume, thus becoming congested and unsafe. For a network to operate efficiently, it is essential for there to be a hierarchical system including highways (such as LA 19, LA 64, and LA 964), arterial streets (like Lower Zachary Road and Pride-Port Hudson Road), collector roadways (including, among others, 39th Street and Fennwood Drive), and local residential streets. Each link in the system is intended to function according to its design capacity, in effect, distributing traffic from the lowest (e.g. local streets) to the highest (arterial streets and highways)

Adopted April 5, 2010

functional classification. Connectivity is essential for providing an efficient, safe, and convenient roadway network.

An optimum street network has an arterial street spaced roughly each mile, thereby forming a neighborhood superblock. Within the superblock, collector roadways should be spaced at one-half mile intervals in each direction. Since development has happened incrementally and without a general plan, the best example of this is Fennwood Drive. Without the guidance of a thoroughfare plan, the street network is typically constructed in a piecemeal fashion resulting in a pattern of discontinuous and disconnected streets. Therefore, a primary purpose of this plan is to avoid these circumstances in the developing areas of the City and the zone of influence. Subdivision regulations that stipulate design criteria are necessary to accomplish an efficient street network.



The amount of development within and adjacent to the City strongly warrants the development and implementation of a Thoroughfare Plan. The 2006 Major Street Plan set forth in the Parish's Horizon Plan suits the needs of a rural parish. However, it is not sufficient, in and of itself, to meet the long-range needs of the development pattern emerging adjacent to Zachary. The City's Thoroughfare Plan must, therefore, extend to encompass its zone of influence and must be designed to ensure the dedication of adequate rights-of-way concurrent with development. Over time, a complete grid of thoroughfares is needed to provide an efficient local system that may be integrated into the larger metropolitan transportation plan.

At the time of land subdivision, the City must ensure conformance with the Thoroughfare Plan and compliance of the street and lot layout consistent with the subdivision design standards. The subdivision regulations must, therefore, have definitive rules relating to street continuity, rights-of-way and pavement cross sections, intersections and street offsets, lot access, medians and entranceways, traffic calming, and provisions regarding cul-de-sacs and alleys, among others. It is imperative for each subdivision to provide connection to the adjacent land as a means for continuing development of the street pattern established by the Thoroughfare Plan. Whether the development is small or large or constructed in one or more phases, it must adequately tie into to the planned roadway network.

GOALS

- ▶ Preservation of rights-of-way in advance of ensuing development
- ▶ Appropriate functional classification of the street system to achieve adequate mobility
- ▶ Maximized continuity of the roadway network to form an interconnected system of streets
- ▶ Improved traffic distribution within and between neighborhoods
- ▶ Adequate provision of transportation infrastructure concurrent with development/redevelopment

Recommendations

1. Adopt the Thoroughfare Plan (see *Map 4.1, Thoroughfare Plan*) and the following policies by ordinance, thereby mandating conformance.
2. Amend the subdivision regulations to incorporate the recommended street cross sections and pavement widths for adherence in all developments. Where there are unavoidable or peculiar circumstances that are not brought about by the subdivider, the City may allow an exception provided it is the minimum variation needed to abide by the standards. An impact study may be required to assess the impacts on the surrounding street system – and neighborhoods – and evaluate viable and warranted alternatives.
3. As a complement to the Thoroughfare Plan, the functional classifications are reflected in **Table 4.1, Functional Classification**, coupled with the following policies and design criteria:

Table 4.1, Functional Classification

Criterion	Freeway (Bypass)	Principal Arterial	Minor Arterial	Collector	Local Street
Functional Role	Entirely through traffic movement with no direct access to property.	Mobility is primary; access is secondary. Connects Freeways and other Arterials.	Connects Freeways, Principal Arterials, and lower classification roadways. Access is secondary.	Collects traffic destined for the Arterial network. Connects Arterials to Local Streets. Also land access.	Access is primary. Little through movement.
Roadway Continuity	Inter-city, regional, and interstate	Connects Freeways to lower classification roadways. Connects major activity centers.	Connects Freeways and Principal Arterials to lower classification roadways.	Continuous between Arterials. May extend across Arterials.	Discontinuous. Connects to Collectors.
Roadway Length	Usually more than 5 miles	Usually more than 5 miles	Usually more than 3 miles	Varies from roughly one-half mile to 2 miles	Generally less than 1 mile
Traffic Volumes (VPD = vehicles per day)	40,000+ VPD	20,000 to 60,000 VPD	5,000 to 30,000 VPD	1,000 to 15,000 VPD	100 to 5,000 VPD
Desirable Spacing	5 miles or more	2 miles or more	Generally one-half to 2 miles	Generally one-quarter to one-half mile	Varies with block length (at least 125 feet between)
Posted Speed	55 to 70 mph	40 to 55 mph	30 to 45 mph	30 to 35 mph	20 to 30 mph
Access	Controlled access. Grade separated interchanges and frontage/service roads.	Intersects with Freeways, Arterials, Collectors, and Local Streets. Restricted driveway access.	Intersects with Freeways, Arterials, Collectors, and Local Streets. Restricted driveway access.	Intersects with Arterials and Local Streets. Driveways limited.	Intersects with Collectors and Arterials. Driveways permitted.
On-Street Parking	Prohibited	Restricted	Restricted	Normally permitted	Permitted
Community Relationship	Defines neighborhood boundaries	Defines neighborhood boundaries	Defines and traverses neighborhood boundaries	Internal and traverses neighborhood boundaries	Internal
Through Truck Routes	Yes	Yes	Permitted	No	No
Bikeways	No	Limited	Permitted	Yes	Yes
Sidewalks	No	Yes	Yes	Yes	Yes

a. Arterials

- i. Access of arterials by higher intensity land uses should be limited to the maximum practicable extent by way of cross- and joint-access agreements and marginal access roads.
- ii. Access points should be no less than 120 feet from street intersections.

- iii. A depressed median (for use as a bio-swale to remove silt and pollution from surface runoff) should be included in the cross section of new arterial streets where the abutting property is not yet fully developed. For developed and developing areas, an access study may be prepared to determine its warrant and feasibility.
 - iv. Access points should be aligned with existing and/or planned median breaks and access points across the street.
 - v. Local streets should not access principal arterial roadways. Rather, they should access a collector roadway or a marginal access road so as to minimize the impedance of traffic and maximize the traffic carrying capacity of the arterial street.
 - vi. Residential driveway access should be prohibited from connecting to an arterial street.
 - vii. Collector roadways should maintain a spacing of approximately one-half mile for which the intersection with an arterial street may be signalized.
 - viii. Acceleration and deceleration lanes, as warranted by a traffic impact assessment, should be provided at intersections (such as driveways to major land uses) to facilitate safe turning movements.
 - ix. Parking should not be permitted on arterial streets.
 - x. Signal warrant studies should be periodically conducted to determine the locations of signalized intersections.
 - xi. Pedestrian crossing improvements should be limited to signalized intersections. Such improvements should include crosswalk delineation via reflective paint or pavement texturing, American's with Disabilities Act (ADA) improvements (curb cuts and ramps), pedestrian and bicycle actuated signals, and advance pavement markings and signage. A pedestrian tunnel or bridge may be warranted at high pedestrian crossing locations, particularly at the time of right-of-way acquisition, design, and construction of new arterials.
 - xii. An eight-foot sidewalk or trail section should be incorporated on one side of all arterial streets.
- b. Collector and Local Streets
- i. Collector streets should be spaced at roughly one-half mile intervals. In certain instances, minor collectors may be warranted for spacing at one-quarter mile intervals.
 - ii. Collector streets should cross bayous and other barriers to provide for network continuity.
 - iii. Collector roadways should not be designated as truck routes unless special precautions are taken with respect to design (curb return radii, minimum tangent lengths between reverse curves, construction specifications, etc.) and the abutting land use.
 - iv. Driveways should not access collector streets. Rather, they should access local streets which then intersect collector streets.
 - v. Collectors should extend continuously between arterial streets.





Speed tables may be used effectively to "calm" traffic while also serving as an amenity.

vi. Traffic calming improvements may be used to slow traffic along continuous sections of collector roadways, as well as in locations around and adjacent to schools, parks, and public open spaces and buildings.

4. Amend the subdivision regulations as follows:

a. Clarify the current provisions relating to the circumstances when *"new subdivisions shall make provision for the continuation of the principal existing streets in adjoining areas."*¹ Essentially, all subdivisions should make provisions for continuing their streets to the adjacent development to avoid enclave neighborhoods with limited points of ingress/egress. Further, remove the statement indicating that *"Local streets in new subdivisions do not have*

*to be connected to existing local streets. In gated subdivisions, connection of local streets to existing streets is not required."*²

- b. Specify the required right-of-way and pavement widths of each street classification, as outlined in "Roadway Classifications" later in this chapter. Establish conditions for which additional right-of-way or street width may be required or narrowed.
- c. Require that private subdivisions shall not terminate an existing or planned collector or arterial street. Alternatively, a private subdivision may propose realignment of a collector or arterial street provided its function and intent are preserved.
- d. Authorize the requirement of a Traffic Impact Assessment (TIA) for traffic conditions that exceed a certain traffic generation threshold or specified development conditions. Such study would be required prior to the acceptance of an application for land subdivision or development. The study

outcome would determine the warrant for on-site and off-site improvements such as traffic signals, geometric intersection improvements, turn lanes, right-in/right-out access points, and acceleration/deceleration lanes, among others.

- e. Include provisions for preparation of a local circulation plan by the City (or a City selected consultant). The circulation plan would identify the desired collector streets within a superblock, areas for marginal access streets or reverse frontage roads, and preferred intersection locations, for which compliance

Street connectivity standards include the following features, which must remain flexible to accommodate specific conditions:

- Average local street intersection spacing to be 300-400 feet.
- Maximum local street intersection spacing of about 600 feet.
- Maximum intersection spacing for arterial streets of 1,000 feet.
- Maximum spacing between pedestrian/bicycle connections of 350 feet (that is, mid-block paths).
- Street pavement widths of 24-36 feet.
- Maximum block size of 5 to 12 acres.
- Limited cul-de-sacs (for example, 20 percent of streets).
- Maximum length of cul-de-sacs of 400 feet.
- Limited gated communities and other restricted access roads.
- Rewards for developments with a high connectivity index.
- Favor for pedestrian and cycling connections.
- Connected street "stubs;" that is, streets that are initially cul-de-sacs, but can be connected when adjacent parcels are developed in the future.

Source: Roadway Connectivity, Creating More Connected Roadway and Pathway Networks, Victoria Transport Policy Institute

¹ Sec. 74-40, Location of new streets in relation to existing and proposed streets, (b) Chapter 74, Subdivisions.

² Sec. 74-40, Location of new streets in relation to existing and proposed streets, (d) Chapter 74, Subdivisions.

- would be required of development. The circulation plan would be based on the policies of this plan and the Thoroughfare Plan.
- f. Consider restrictions on curvilinear, discontinuous streets, dead-ends, and cul-de-sacs by requiring a measure of street continuity and points of access.
 - g. Allow for varying residential street widths whereby the pavement width and other design requirements (e.g. parking lanes, curb width, parkways, and sidewalks) are functions of the number of dwelling units served (determined by the units' average frontages). This approach is for local streets and is not applicable to collector or arterial streets.
5. Make a formal request of the City-Parish Planning and Zoning Commission to adopt the City's Thoroughfare Plan and integrate it into the Parish's Major Street Plan. This would help to ensure the preservation of rights-of-way concurrent with land subdivision development, particularly during the intervening years before the City proceeds in its growth management program (refer to *Chapter 3, Growth Management*).
 6. Actively participate in the meetings of the Capital Region Planning Commission (CRPC) to represent the interests of Zachary pertaining to the metropolitan transportation plan and the transportation improvement program (TIP). This is relevant to the decision with respect to the alignment of the proposed bypass and other improvements that may affect the City's Thoroughfare Plan. Additionally, this agency is responsible for channeling Federal and State funds for transportation projects throughout their 11-parish region.
 7. Provide the City's adopted future land use plan (refer to *Chapter 2, Community Character & Housing*) to the CRPC for its incorporation into the urban area transportation model. This may be used in preparing the land use assumptions required for the transportation model.
 8. Through the subdivision development process, ensure that designated thoroughfares are extended, as appropriate and warranted, including, but not limited to, Fennwood Drive to the north of Rollins Road to Pride-Port Hudson Road, Old Barnwood Avenue and/or Lake Pointe Avenue west across LA 964 and Noble Street west of Cypress Street connecting to the planned north-south minor arterial.

Transportation improvement program (TIP) means a staged, multi-year, intermodal program of transportation projects covering a metropolitan planning area that is consistent with the metropolitan transportation plan.

Traffic Management

Essential to managing traffic is preserving the capacities of arterial and collector streets. The capacity and, hence, level of service is affected by the following:

- ◆ number of access points (streets and driveways);
- ◆ impedance of traffic flow by vehicles entering and exiting properties;
- ◆ number of intersections;
- ◆ lane width;
- ◆ synchronization of traffic control devices;
- ◆ allowance for deceleration and/or acceleration at ingress/egress points; and
- ◆ the presence or void of a center turn lane or median.

Of specific relevance is managing access along the community's arterial streets. Rollins Road, for instance, has homes with individual driveways accessing what will become a principal arterial street. This occurrence increases the number of conflict points and causes concern for safety, slows travel speeds, and constrains the function and capacity of this roadway. To maximize the efficiency of traffic movement,

Access Management

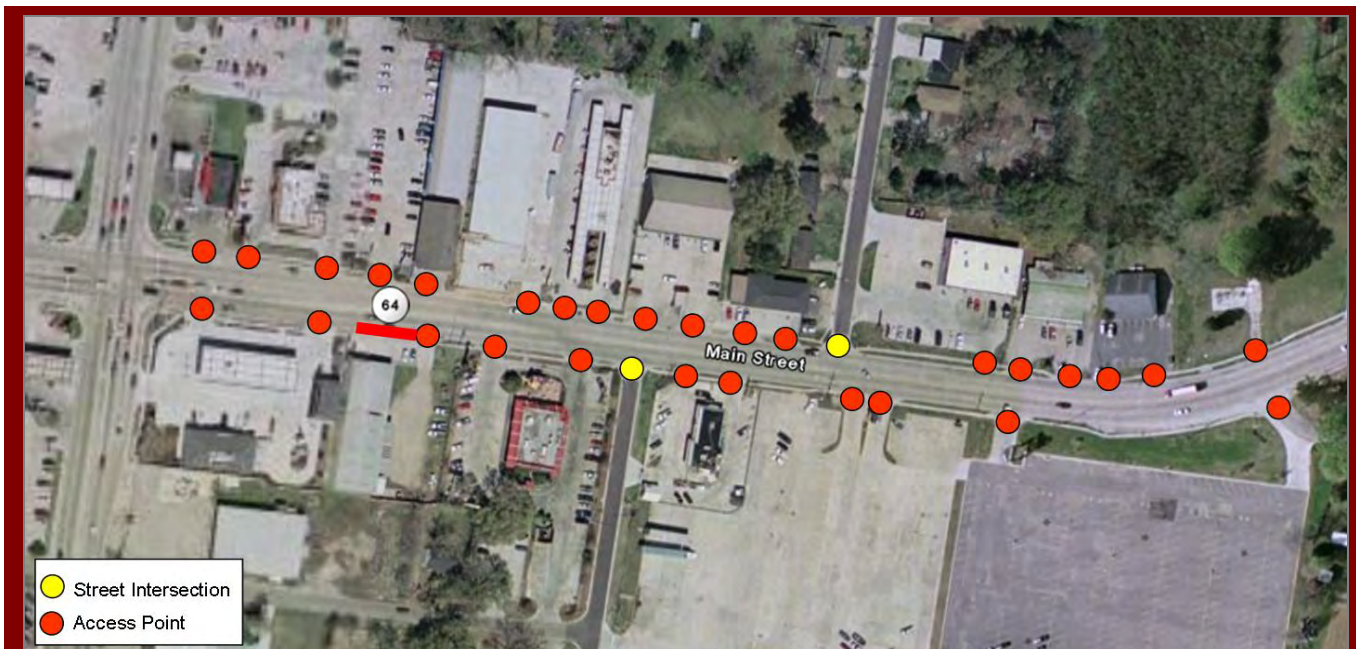
Research indicates that a well-designed and effectively administered access management plan can result in the following tangible benefits:

- Accident and crash rates are reduced.
- Roadway capacity and the useful life of transportation facilities are prolonged.
- Travel time and congestion are decreased.
- Better coordination between access and land use is accomplished.
- Economic activity is enhanced by a safe and efficient transportation system.
- Urban design and transportation objectives are reconciled.
- The character and livability of the community is preserved through the coordination of land use and transportation.

these situations should be avoided in the future. Solutions may include marginal access streets, reverse frontage roads, shared driveways and cross access agreements, and street medians.

The pattern of land use adjacent to commercial corridors greatly affects its operating efficiency. The prevailing strip commercial pattern along LA 64 to the east of LA 19, for instance, causes congested conditions for several reasons. First, this is the only cross-town roadway, meaning that all traffic must pass through this area to access LA 19 or LA 67. Second, the volume of traffic destined for this business area, together with the through traffic, impedes flows due to lane changes, left turn movements, and the number of driveways. Driveways represent the potential for

vehicle conflict points. Adequate spacing of driveways allows drivers to react to one intersection at a time and reduces the potential for conflict. Other problems may include the driveway turning radius, which requires entering and exiting vehicles to slow or turn wide to complete their maneuver, creating potential blockages and conflicts. Similarly, a minimum distance between an intersection and a driveway is necessary to traffic flow disruptions and potential collisions caused by vehicles entering or exiting driveways.



Access control along LA 64 is an example of Transportation Systems Management (TSM) that would increase volume and, hence, improve level of service and enhance travel safety.

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A more efficient development pattern includes, at a minimum, commercial areas that are arranged in nodes at major intersections, rather than placed along the frontage of each arterial street. The preferred pattern is one where there is a mixture of uses within a unified development, such as a planned development or a traditional neighborhood development. This development type allows for many conveniences to occur within the neighborhood, thereby lessening the number of external vehicle trips. These patterns allow the roadway system to be adequately designed for higher volumes of traffic, including provisions for adequate rights-of-way and pavement widths, traffic signalization, better managed points of ingress and egress, medians and turn lanes, acceleration/deceleration lanes, and marginal access or reverse frontage lanes. These patterns are discussed in greater detail in *Chapter 2, Community Character & Housing*.



Traffic generally operates and flows to the areas of least resistance. This is to say that vehicles will naturally be channeled to corridors that are more direct or reduce travel time. This is not optimal unless the roadway system is adequately designed to accommodate it. As a result, there is traffic that “cuts through” neighborhoods to avoid congested routes. In Zachary, the street system is not yet capable or designed to accommodate increased traffic. This causes complaints of neighborhood traffic, excessive speeds, and a concern for safety. The use of traffic calming improvements helps to slow or divert traffic, making a better situation until the thoroughfare system can be sufficiently developed.

Congestion in Downtown is due, in part, to the limited thoroughfare network, as well as highly constrained rights-of-way (particularly along Main Street immediately west of LA 19) and conflicting traffic movements. There is a high volume of traffic along Main Street, particularly during peak periods, which queues at the intersection with LA 19, extending in each direction and blocking business driveways. Therefore, movements in and out of parking areas are difficult. The situation is exploited by the desire to optimize traffic flows and speeds. Among the solutions for the congestion in Downtown are a one-way pair extending along Church Street and Main Street and connecting at each end. Over the longer term, continued development of the thoroughfare network will provide alternate routes to help alleviate the high trip volumes along Main Street. A solution outlined in *Chapter 2, Community Character & Housing*, is to re-assess the orientation of Downtown and evaluate other development or redevelopment schemes (refer to *Chapter 2, Community Character & Housing* for more information).

GOALS

- ▶ Preserving the traffic carrying capacities of collector and arterial roadways
- ▶ Managing property access to improve level of service, reduce congestion, and enhance safety
- ▶ Coordinating land use and transportation objectives
- ▶ Effectively managing traffic volumes and speeds within neighborhoods and safety sensitive areas
- ▶ Coordinating among intergovernmental agencies

Recommendations

1. Coordinate with LaDOTD and the CRPC to request the following:
 - a. Traffic engineering and design studies along LA 19, LA 64 (particularly east of LA 19), and LA 964 to identify improvements such as driveway consolidation and cross access easements, increased driveway turning radii, signalization, acceleration/deceleration lanes, turn lanes, and the warrant for medians, where applicable. Subsequently, require the dedication of additional rights-of-way, where needed, to accommodate medians and turn lanes as warranted.
 - b. A design options study for Main Street from LA 19 west to Rollins Road. The purpose of this study is to identify access and intersection improvements, geometric design alterations, signage and signalization improvements, and pedestrian enhancements to improve traffic operating and safety conditions.
 - c. Participate in CRPC meetings to request prioritization and placement in the Unified Planning Work Program (UPWP) and Transportation Improvement Program (TIP) a one-way pair along Church Street and Main Street or alternatively, a cross-town reliever route to improve the level of service on Main Street.
2. Amend the subdivision regulations as follows:
 - a. Incorporate access standards to restrict the number, location (distance from intersections and property lines), spacing, and alignment of driveways, street intersections, medians and median openings, marginal access roads, and turn lanes.
 - b. Establish standards for a maximum width and minimum turning radii of driveways based on use classifications.
 - c. Prohibit residential access to arterial streets. Also, restrict access on collector streets by requiring that lots take access to local streets, parallel streets, or alleys.
 - d. Require marginal access roads along all frontages abutting arterial and collector streets to minimize the number of access points. The number of residential streets intersecting arterial streets should be limited.
 - e. Require shared driveways and cross access easements/agreements between abutting properties adjacent to collector and arterial streets.
 - f. Establish vehicle stacking requirements for drive-through uses to ensure sufficient on-site circulation to avoid queues that interfere with other traffic movements.
 - g. Establish standards for the use of traffic calming improvements along continuous, relatively straight streets (for a distance of 500 feet or more) carrying volumes greater than 100 vehicles per peak hour, when actual speeds exceed posted limits, and/or when the street is adjacent to a school, park, or public building.
3. Evaluate the feasibility of reverse frontage roads for areas planned for commercial or mixed use development.

Traffic Calming involves changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and/or cut-through volumes in the interest of street safety, livability, and other public purposes.



Speed Hump



Roundabout



Narrowed Entrance



Street Closure



Choker

Adopted April 5, 2010

4. Add boulevards and parkways to the street cross sections. Their purpose is both functional, by way of improved traffic management, and aesthetic.
5. Periodically conduct signal warrant and signal timing studies as area travel volumes increase with new development.
6. Install pedestrian and bicycle actuated traffic signals at arterial and collector street intersections, particularly in Downtown and near schools, parks, and public buildings.
7. Require performance of traffic calming studies where there are warranted conditions. A study must identify both alternative and recommended improvements given site-specific conditions.



Pedestrian Mobility

A transportation system is not complete unless it meets the needs of all travelers. This is to say that “complete streets” are designed equally for vehicles, bicyclists, and pedestrians. This was acknowledged by comments received through the public input process regarding the need for sidewalks within and between neighborhoods, a desire for a City-wide trail system, and concerns for the safety of pedestrians. Generally, there is a desire to enhance the street, sidewalk, and trail systems for increased use by pedestrians and bicyclists.

A comprehensive and well-connected pedestrian network will be formed over time as each development contributes its requisite improvements. The subdivision regulations require sidewalks on both sides of all streets. Currently, trails are not required. To compliment the pedestrian improvements constructed concurrent with development, the City’s role is to provide for pedestrian improvements along its arterial streets, as well as pedestrian-actuated signals, crosswalk signage and pavement markings, and curb cuts and median breaks. To abide by the premise of “complete streets,” the pedestrian system must not be overlooked in the capital funding program.

Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and bus riders of all ages and abilities are able to safely move along and across a complete street.

Source:
www.completestreets.org

Due to the requirement that “sidewalks shall be provided by the property owner or developer along both sides of all streets,” most of the newer neighborhoods and commercial areas have sidewalks.³ However, at this stage of development, they do not yet extend between neighborhoods and connect to other areas. There are also significant barriers to their use including major streets and bayou crossings, as well as few improvements such as warning lights at crossing locations and a lack of American’s with Disabilities Act (ADA) improvements in the well-established neighborhoods. These and other considerations must

³ Sec. 74-46, Street and sidewalk improvement standards (f) Sidewalks, Chapter 74, Subdivisions

become a priority to encourage a higher propensity of pedestrian use. Additionally, sidewalks are integral as connections between community trails.



Non-urban street; no sidewalks.



Discontinuous sidewalks are common, yet problematic for community walkability.

In many of the well-established neighborhoods, there are no sidewalks or their conditions have deteriorated. Their repair or replacement is both costly (in light of the demands for other infrastructure), and there is a common question as to whose responsibility it is to repair: the City, neighborhood association, or individual property owner. Furthermore, where there are missing sidewalks, there are usually obstacles (trees, light poles, utility boxes, etc.) and concerns of homeowners as to the disturbance of their yard. These improvements are necessary, though, if Zachary is to have a good pedestrian system.

Without pre-planning for trails, they are highly difficult to retrofit following development. At this early stage of development, Zachary has the opportunity to begin the process of creating a City-wide trail system as development occurs. However, it must occur in accordance with a trail master plan, as well as modification of the subdivision regulations to require trails. Currently, there is a loosely connected network of sidewalks, trails within City parks, unofficial bike lanes, and roadway shoulders that do not form a complete network. Completion of a pedestrian and trail network is made difficult by insufficient or costly acquisition of rights-of-way and design constraints where there are limited – or cost-prohibitive – options for connection.

GOALS

- ▶ An interconnected, City-wide network of trails, greenways, and pedestrian linkages
- ▶ Development of multi-functional public street corridors
- ▶ Improved pedestrian infrastructure systems
- ▶ Increased connectivity within and between neighborhoods
- ▶ Enhanced pedestrian safety

Recommendations

1. Conduct a sidewalk inventory to denote the presence of sidewalks. Document the locations of and needs for handicap ramps and curb cuts. Also, identify segments that are in poor condition or unfit for safe use, as well as barriers to connectivity.
2. Prepare a need assessment to determine necessary improvements to connect existing sidewalks. Improvements may include trail/sidewalk connectors, intersection or street crossing projects, and improved signage.
3. Prepare a five-year capital improvement program (CIP) including priority projects in Downtown and the areas around schools, parks, and public buildings. Earmark a specific amount to be budgeted

annually for sidewalk improvement and construction. Alternatively, consider an improvement district where the costs are apportioned to individual property owners.

4. Prepare a Safe Sidewalks Program to identify improvement projects in proximity to schools, public buildings, and other areas prone to pedestrian use. Funding may be sought through the Louisiana Safe Routes to School program.
5. Amend the subdivision regulations as follows:
 - a. Increase the minimum width of sidewalks to five feet.⁴ Specify the circumstances when sidewalks are required on site in commercial, industrial, public, institutional, and multi-family areas.
 - b. Require mid-block public access easements when a block length exceeds 750 feet.⁵ Similarly, require easements at the ends of cul-de-sacs to improve pedestrian connectivity. Easements should be a minimum width of 10 feet, improved with a five-foot wide sidewalk or trail.
 - c. Amend the roadway cross sections and design and construction standards for all street improvement projects to incorporate an eight-foot wide sidewalk/trail on one side of all arterial roadways. Culvert crossings and bridges must be designed accordingly. Other design considerations include minimum bridge clearance for trail underpasses and bridge approach and interchange design standards.
 - d. Establish provisions requiring sidewalk systems in all subdivisions to connect to adjacent subdivisions and to existing and proposed future trails. Subdivisions with an average lot size of one acre or more may include trails in lieu of sidewalks, subject to prescribed standards and requirements. Trails within private subdivisions that tie into the City's proposed trail system shall be open to the public.
 - e. Require bicycle racks at office and retail developments exceeding 15,000 square feet and businesses employing more than 10 persons.
6. Use density bonuses to offset land dedication requirements for open space and greenway corridors. The allowable densities should be equivalent or higher than that of the base density of the district. This is also useful to protect resource areas that offer an appealing setting for nature paths.
7. Solicit the involvement of local interest groups and other agencies, organizations, and jurisdictions to provide funding assistance or in-kind services to construct trails and nature walks. Projects constructed without Federal funds offer greater flexibility in the standards of construction.
8. Where warranted, install medians within the rights-of-way of arterial roadways, particularly near public parks and buildings, for use as a pedestrian refuge to shorten the unprotected distance across



On-site pedestrian ways are an important part of site design (shown: grocery store).



Public access easements improve pedestrian connectivity within and between developments and to public spaces.

⁴ Sec. 74-46, Street and sidewalk improvement standards (f), Chapter 74, Subdivisions

⁵ Sec. 74-36, Blocks provide that "the commission may require a gravel crosswalk near the center of the block with a minimum right-of-way of ten feet where the nearest portion of the block is within 1,500 feet of an existing school."

wide roadways. Consider pedestrian bridges or tunnels to overcome barriers, such as each of the major arteries (LA 19, 64, 964, and 61).

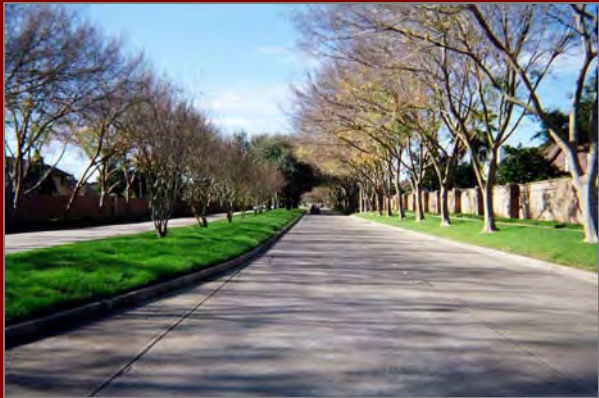
Corridor Appearance

The conditions along Zachary's corridors are significant to community appearance. The State routes are each highly traveled by those who travel them daily and those who are introduced to the community by its roadways. The appearance of corridors is characterized (with few exceptions) by large setbacks, expanses of parking adjacent to the street, limited green space and landscaping, multiple access points, a

proliferation of signage, and widely varying building styles and materials. Achieving enhanced corridor environments will involve new policies and standards. New standards for landscaping, for instance, will help, but will not fully improve the corridor environs without addressing a host of other factors. Rather, a comprehensive program must be designed to achieve the desired outcomes.

There are separate, yet related, components to improve corridor appearance. This chapter expresses what may be accomplished within the right-of-way (controlled by the City, Parish, or LaDOTD). Strategies to enhance development adjacent to the street is addressed in *Chapter 2, Community Character & Housing*. The contributing factors within the right-of-way include the pavement cross section

(undivided or divided), drainage design (ditch or curb-and-gutter), and surface type (asphalt or concrete). The amount of green space and natural landscape are significant to visual appeal, both of which soften the roadway environs. High Street is an example where the tree canopy and amount of green space positively affects the aesthetic of the street environment.



The roadway environs are within the purview of the public sector as to their design, appearance, and maintenance.

GOALS

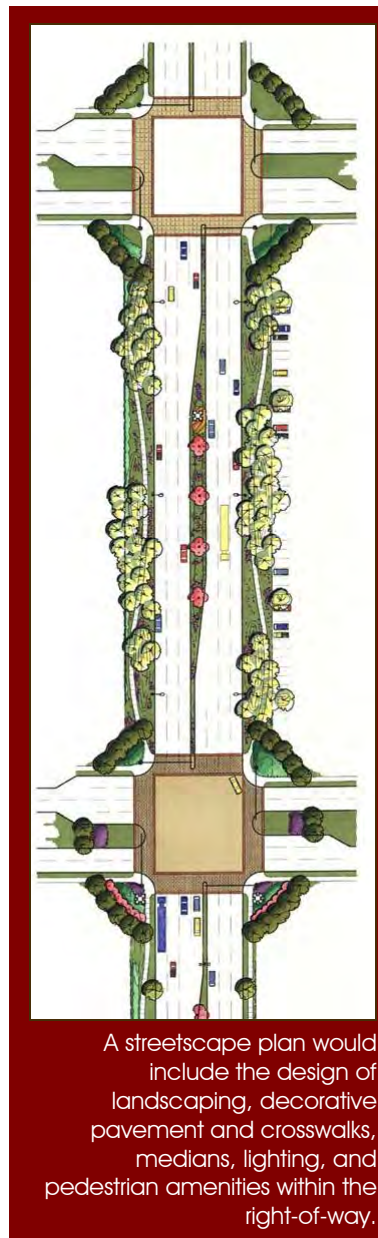
- ▶ Leveraging the design of roadways for enhancing community design
- ▶ Enhancing the appearance of the street environment
- ▶ Maximizing the aesthetic utility of the public rights-of-way
- ▶ Increasing green space within and adjacent to road corridors

Recommendations

1. Adopt fencing standards for subdivisions and individual properties including standards for their location, type, materials, and design and the method of construction. Uniform fencing should be installed by the subdivider at the time of development and should be of consistent type and design around the perimeter of the subdivision and adjacent to public rights-of-way. Along arterial streets, fencing should have decorative columns and horizontal relief. Its proximity to the right-of-way must allow for a street bufferyard.
2. Require neighborhood associations to be responsible for the repair or replacement of subdivision fencing, consistent with City standards. For all others, explore requiring a land title provision notifying the owner as to the City's fencing standards.

Adopted April 5, 2010

3. Require a perimeter buffer adjacent to all collector and arterial streets. There must be maintenance agreements and guarantees on behalf of the subdivider and/or neighborhood association.
4. Acquire triangular areas at intersections for public open space. Also, accept land dedication of excess rights-of-way, vacated easements, and other non-developable parcels for use as public open space. Consider assigning the land to a public land trust or conservation authority.
5. Coordinate the alignment of arterial and collector streets to protect and preserve stands of trees and the nature-scape adjacent to the street right-of-way.
6. Prepare corridor streetscape plans for LA 19, LA 64, LA 964, and LA 67. Design principles for their design may include, among other provisions:
 - a. Raised or depressed medians, which create space for drainage, grass, groundcover, trees, public signage, gateway treatments, and other amenities.
 - b. Street trees within the median and the outer streetscape areas (in agreement with LaDOTD). The species of street trees must be carefully selected to include those that are tolerant of the environment. The City could incorporate xeriscaping to be natural in appearance, environmentally sustainable, and requiring little maintenance.
 - c. A parkway adjacent to the curb creating an edge between the public and private realms and providing green space adjacent to the street.
 - d. Limiting the number, width, and location of driveways, consolidating driveways, and installing curb cuts and patterned crosswalks to create a more appealing pedestrian environment.
 - e. Decorative street lamps that vary in height, yet are consistent in style. The use of banners affixed to the lampposts, as seen in the Downtown area, allows the community to personalize itself.
 - f. Undergrounding utilities or relocating them away from the corridors.
 - g. Use of decorative signal poles and mast arms.
 - h. Consolidation of traffic signs onto single poles and reducing the number of signs adjacent to the right-of-way.
7. Organize a public education campaign to promote improved property maintenance and compliance with City codes, along with an annual amnesty program for violators. Volunteer to assist property owners in identifying violations and conforming solutions.



High Capacity Transit

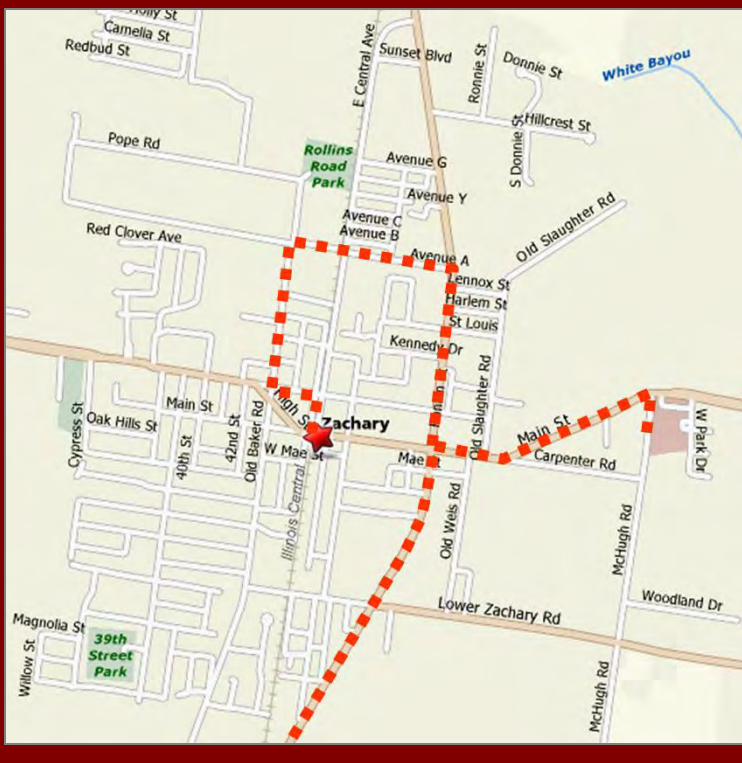
Public transit complements and contributes to an efficient transportation system. The location of Zachary and the unfolding pattern of development will influence the value and feasibility of public transportation services. The propensity for transit use is directly related to the compactness and density of development. Therefore, to embrace the demand and warrant for increased service, the pattern and form of development are highly relevant.

Under present conditions, though, development is occurring at the edges of the community and in the surrounding areas of the Parish. This pattern is not conducive to transit use. Therefore, the focus is within

the original town area where transit use may be improved by more compact, transit-supportive development, improved infrastructure for walking and bicycling, and creation of transit options and destinations.

Among the mobility issues cited by residents, there is a growing desire for better transit service. Of significance is the limited routes and number of stops, travel time and the required transfer at the Capital Area Transit System (CATS) terminal, limited or no service on weekends, and bus stop improvement needs. Presently, 88 percent of trips to work are by single occupant vehicles, with less than one percent via public transportation. The trip purpose for those using public transit is for medical, shopping, and social service reasons. Unfortunately, the amount of State and Federal funding support is decreasing, presenting a challenge to Zachary and the Capital Area to grow its services and fulfill the needs of the community and region. For this and other reasons, the community must plan for an efficient pattern of growth that is supportive of transit service.

Figure 4.1, Transit Route



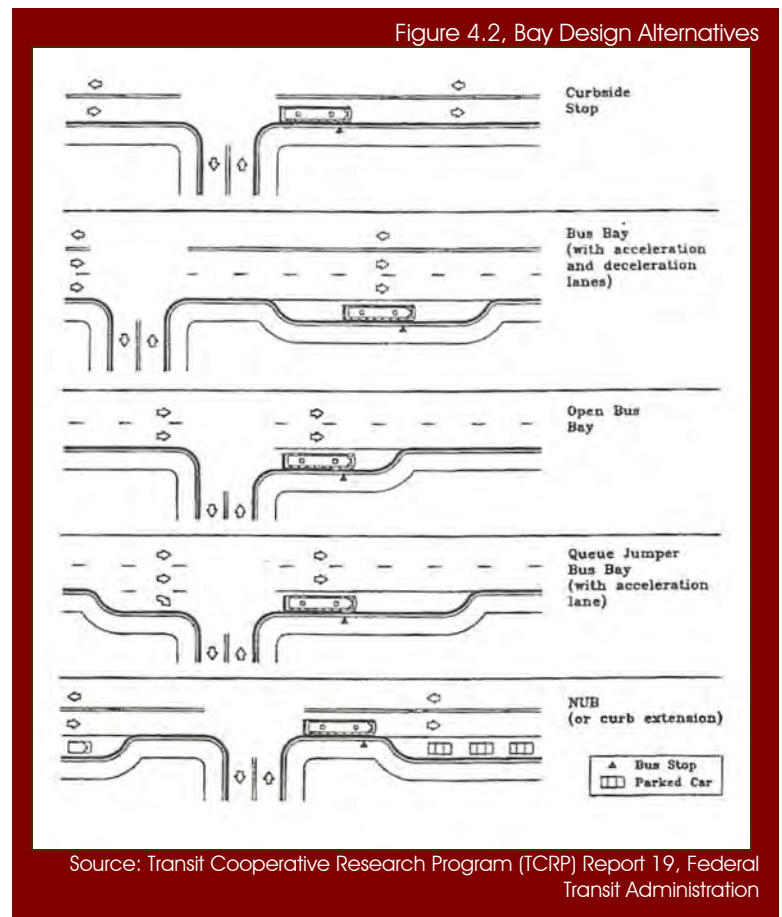
Currently, CATS operates a fixed route service that provides public transportation for Zachary residents. It operates from 5:00 a.m. to 8:00 p.m. with a stop at Lane Hospital every 40 to 60 minutes. The route enters the City on LA 19, travels along Main Street to Lane Hospital, and then completes a loop through the original town area, as displayed in **Figure 4.1, Transit Route**. The route connects to the main transit terminal in Downtown Baton Rouge (at Florida and 22nd), where riders may transfer to one of the other routes. The fare is \$1.75 for adults and \$0.35 for senior citizens, persons with disabilities or a Medicare card, and students. Children under five years are free. There is also CATS On-Demand, dial-a-ride service for disabled persons with advanced certification. The origin and destination of the requested demand-response trip must be within three-quarter mile of a fixed route.

GOALS

- ▶ Increased mobility for transit dependent persons
- ▶ Expanded transit services, routes, and hours concurrent with community growth
- ▶ Improved site design to better facilitate transit access and safe usage
- ▶ Land use and growth patterns that are transit supportive
- ▶ Enhanced capital improvements for public transportation

Recommendations

1. Collaborate with the Capital Area Transit System to regularly evaluate the performance of the fixed route service, identify modifications or potential new routes, research coordinative opportunities with other transportation providers, assess the long-term feasibility of commuter service, identify infrastructure improvement needs, and recommend revenue options and funding needs and strategies.
2. Execute an advertising and marketing campaign to inform the public as to the transit services and schedules available in Zachary.
3. Consider increased financial support for broader coverage and hours of operation beyond 8:00 p.m. Consider partnering with Lane Hospital to sponsor, market, and advertise at transit stops (subject to City sign standards).
4. Facilitate regular meetings with CATS, Lane Hospital, LaDOTD, and other transportation providers to identify opportunities for coordination of service. Consider an interagency agreement with the Parish, area cities and school districts, Louisiana State University (LSU), Baton Rouge Community College (BRCC), Southern University, and others for joint vehicle maintenance and procurement and driver training.
5. Participate in a study to investigate the feasibility of commuter service. Conduct an intercept survey to solicit information as to commuter trip purpose, origin and destination, and other factors. Utilize the survey to target market the area and potential users for use of a commuter service.
6. Establish a ride-share program to aid in matching carpoolers. Seek Job Access and Reverse Commute Funding for the program.
7. Identify locations for transit-oriented street improvements such as adjacent to Downtown and Lane Hospital, including:
 - a. special left turn lane signal phases at intersections;
 - b. preferential signal timing to aid bus travel time;
 - c. initiation of parking regulations to clear the curb lane for bus operations, particularly at high volume transit stop locations and during peak travel periods;
 - d. improved identification of bus stop locations and installation of no parking signs; and
 - e. pavement markings at transit stops.
8. Evaluate locations for bus pull-out bays to separate the street travel lanes from passenger boarding and alighting areas. Displayed in **Figure 4.2, Bay Design Alternatives**, are the various types of bays applicable for different situations.





Permanent bus stop improvements would reflect a commitment to transit ridership.

9. Solicit the involvement of the arts community to design custom transit shelters that relate to the history and identity of Zachary.
10. Prepare site design guidelines for pedestrian access to transit stop locations.
11. Within street improvement projects along bus routes, incorporate design provisions relating to sidewalks; curb cuts and handicap accessible ramps; non-slip surfaces; marked, signed, and/or signaled pedestrian crossings; prevention of obstructions for wheelchair access; and installation of pedestrian actuated traffic signals.

Thoroughfare Planning: Classifications and Standards

Thoroughfare planning is a process to assure development of an efficient street system to meet future travel needs. The objective of a Thoroughfare Plan is to ensure that adequate right-of-way is preserved on appropriate alignments and of sufficient width to allow the orderly and efficient improvement of the street system. Shown in **Map 4.1, Thoroughfare Plan**, are the alignments for planned thoroughfares that must be considered in the platting of subdivisions, dedication of rights-of-way, and construction of roadways within the City's planning area. The actual alignments may vary from those represented on the plan depending on the design and layout of development. Requirements for rights-of-way dedication and construction of street improvements apply to all subdivisions of land.

The street classifications represented on the thoroughfare plan denotes the right-of-way requirements and the street cross section. In some instances, like Rollins Road, an existing road may require additional right-of-way to fulfill its functional role. In other cases, certain streets may not be widened due to design constraints and right-of-way limitations. In this instance, the plan designation signifies its traffic-handling role and the importance of maintaining it in good condition to maximize its traffic capacity. These decisions will be made by the City using the thoroughfare plan as guidance.

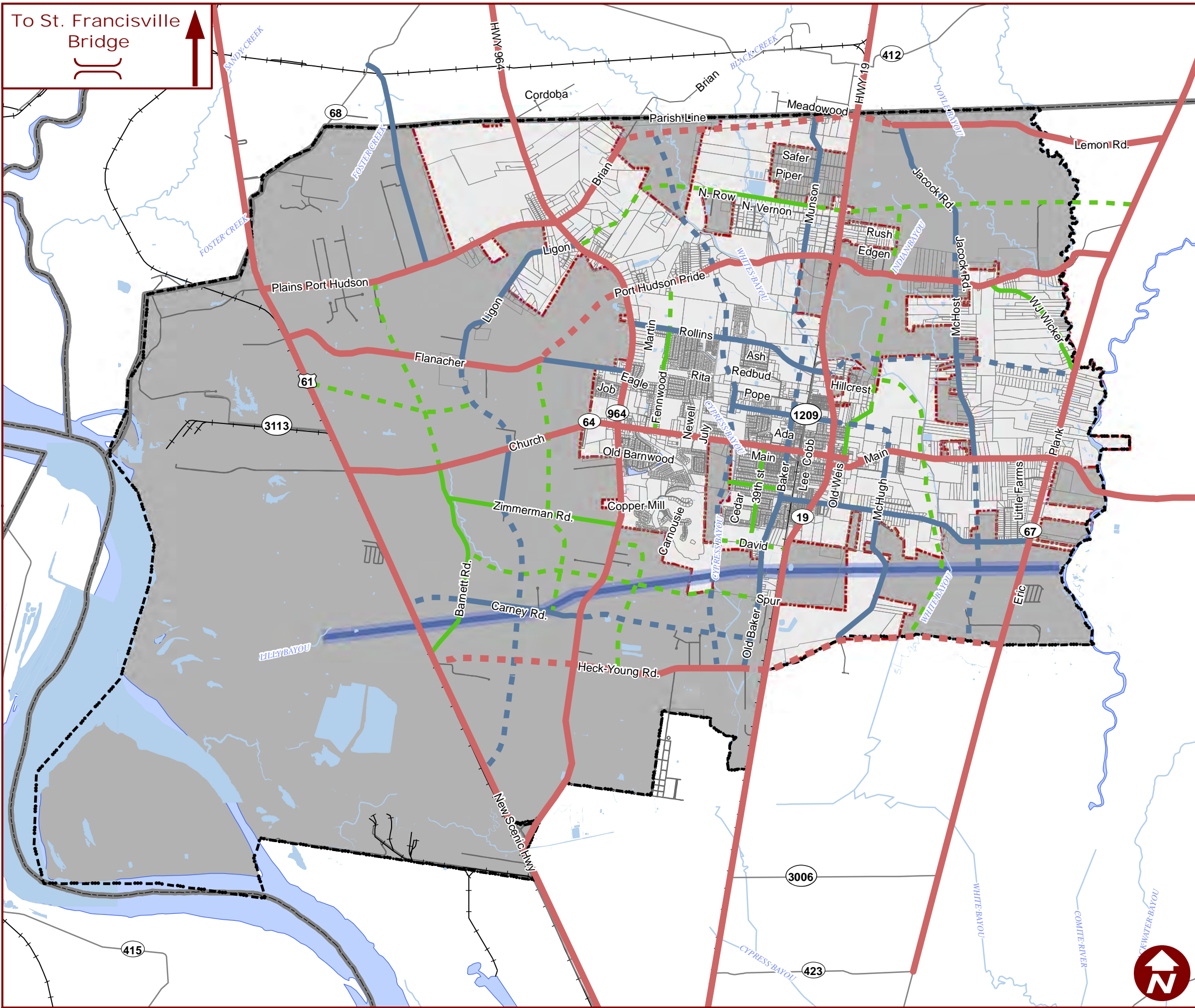
The thoroughfare plan does not show future local streets because their function is to provide property access and their alignments will vary depending on the land development plan. Local street alignment should be determined as part of the subdivision development process. Of particular importance is their intersection with collector and arterial streets, continuity and efficiency of design, means of calming traffic, and their role in conveying local traffic and accommodating pedestrians.

Although not shown in all locations, collector streets serve an essential function in the street system. Their alignments will depend on the surrounding street system and the layout and density of development, but must be continuous and adequately spaced to distribute traffic to the arterial streets. The locations of collector streets will be determined during the subdivision review process.














Policies of the thoroughfare plan are as follows:

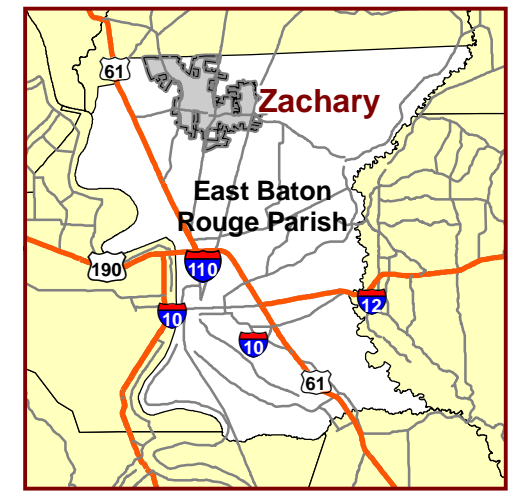
- ♦ Review of preliminary plans and final plats for proposed subdivisions (in accordance with the subdivision regulations) must be in compliance with the thoroughfare plan to ensure consistency and the availability of sufficient rights-of-way for the general alignments shown on the plan.

To St. Francisville Bridge

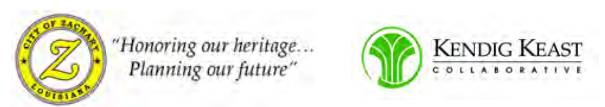



Map 4.1 Thoroughfare Plan

-  Principal Arterial
-  Principal Arterial, Planned
-  Minor Arterial
-  Minor Arterial, Planned
-  Collector
-  Collector, Planned
-  Future Diversion Canal
-  Corporate Limits
-  Proposed Zone of Influence
-  East Baton Rouge Parish Boundary
-  Major Water Bodies
-  Streams
-  Railroads

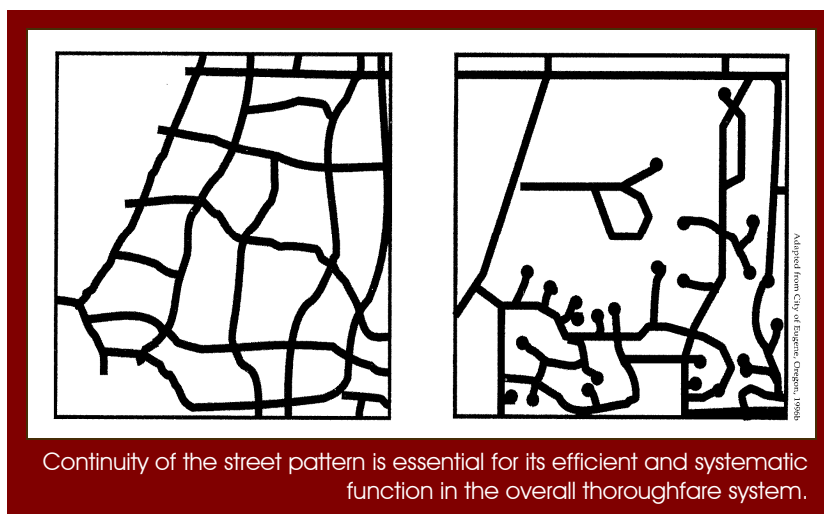


0 0.45 0.9 1.8 Miles



Adopted April 5, 2010

- ◆ The general location and alignment of thoroughfares must be in conformance with the thoroughfare plan. The alignments are approximate pending subdivision and engineering design. Major changes in alignments that are inconsistent with the plan require approval of the Planning and Zoning Commission through a public hearing process. A major change includes any proposal that adds or deletes a thoroughfare designation or changes the alignment of thoroughfares that would affect adjacent lands.
- ◆ Variances from the thoroughfare plan must warrant substantial evidence in support of an amendment and show how an alternative plan will provide improved circulation and an equal or improved level of service on all affected roadways.
- ◆ The necessary rights-of-way reflected by the street classification and corresponding cross section in the subdivisions regulations must be dedicated at the time of final platting. Properties proposed for subdivision that include or are adjacent to an existing thoroughfare with insufficient right-of-way must dedicate land to compensate for the deficiency.
- ◆ Existing streets adjacent to land proposed for subdivision must be continued into or through the development to meet the continuity objectives of the thoroughfare plan. The arrangement of streets in new subdivisions must make provision for continuing the existing arterial and collector streets in the adjacent areas.
- ◆ Landowners are responsible for the dedication of rights-of-way and may be responsible for constructing sections of roadways located within or adjacent to their property.
- ◆ The total width of street rights-of-way must be dedicated at the time of development. The dedication of one-half of the required right-of-way must not be accepted unless the other one-half already exists or there is a plat on file for the adjacent land or parcel.
- ◆ Collector streets must traverse adjacent neighborhoods to provide access and circulation both within and between neighborhoods. Collectors should connect arterial streets, rather than allowing development to have an independent street system with no other points of ingress/egress other than a single access point.
- ◆ Collectors must connect arterial streets with other collectors and local streets. Their continuity is essential for their function of distributing traffic within the street system.
- ◆ The denotation of a future thoroughfare on the plan does not represent a commitment to a specific timeframe or the responsibility for construction.
- ◆ The alignments of local streets are dependent upon land development plans and are not set forth by the thoroughfare plan. Their design is subject to the subdivision review process.



Roadway Classifications

The City's streets are grouped into functional classes according to their role for traffic movement and land access. Characteristics of each functional class differ to meet the corridor's intended purpose. The

functional classification system includes principal and minor arterials, collectors, and local streets. Alleys and marginal access streets are a function of service and property access and are not reflected in the classification system. A description of each street classification is provided below.

Local Streets

Local streets allow direct access to properties. They are intended to carry traffic to collector streets and are designed for slower speeds. The use of geometric design, traffic control devices, and traffic calming improvements are important to manage traffic speeds and secure safe neighborhood environments.

There are now two standards for local streets, including one with and one without curb and gutter. Curb and gutter streets are presently required to be 22 feet in width and centered within 50 feet of right-of-way. An additional dedication of five feet on each side is required on each side of the right-of-way for sidewalks, which is part of the street right-of-way. Local streets without curb and gutter may be 20 feet wide and within 60 feet of right-of-way (or servitude), also with the same five feet on either side for sidewalks. The greater width of right-of-way is to accommodate adequate slopes for drainage purposes.

While the rights-of-way for the two cross sections are acceptable, it is proposed that the pavement widths be expanded from 22 feet to 26 feet for curb and gutter streets and from 20 feet to 24 feet for local streets without curb and gutter. Travel lanes that are 12 feet in width would be sufficiently designed to carry immediate local traffic and better accommodate fire apparatus.

The current standards apply universally and, thus, do not account for where less right-of-way and pavement width may be acceptable due to larger lot sizes, lower density, and fewer trips generated. As a result, there is more pavement width than necessary in some cases, which adds to development costs, reduces development efficiency, causes higher travel speeds, and results in increased stormwater runoff. Therefore, this plan proposes alternative street cross sections where such pavement width is not warranted.

Collector Streets

Subdivision street layout plans, whether for residential or nonresidential districts, must include provision for collector streets to provide efficient traffic circulation. Collectors are designed to carry higher traffic volumes, thereby requiring a wider street section. Also, added lanes may be necessary at intersections with arterial streets to provide adequate capacity for through traffic and turning movements.

The current standards indicate a right-of-way width of 50 feet, with an increase to 60 feet for collector streets in "business, commercial, and industrial zoning districts." A provision of the current regulations allows for a major street requiring an increased right-of-way of 80 feet. In all cases, the pavement width is 27 feet. It is recommended that the regulations specify definitive standards for the rights-of-way and pavement widths of collector streets dependent upon the projected traffic volume.

The thoroughfare plan designates the locations of collector streets. Their future classification as a major and minor collector is distinguished by the volume of traffic (determined at the time of subdivision). A major collector is designed for 7,500 to 15,000 vehicles per day (VPD), requiring a pavement width of 36 feet. A minor collector is for up to 7,500 VPD, allowing a reduced pavement width of 32 feet.

An alternate for rural development is a street section without sidewalks or curb and gutter. This permits development to maintain a rural character where drainage is handled without curb and gutter. In this type of development, the pavement width may be reduced to 28 feet, while the right-of-way requirement would remain at 60 feet to accommodate ditches.

Arterial Streets

Arterial streets form an interconnected network for broad movement of traffic. They commonly represent five to 10 percent of the total street network, but accommodate 30 to 40 percent of the travel volume. Since traffic movement is their primary function, access management is essential to avoid traffic congestion. Intersections with other streets and driveways should limit speed differentials to no more than 15 miles per hour.

The cross section of arterial streets may vary from multi-lane to two-lane roads in the developing fringe areas where traffic volumes do not yet warrant more travel lanes. Functional classification is not dependent on the existing number of lanes since the functional role served by a roadway typically remains constant over time, while the street section is improved to accommodate increasing traffic volumes. Thus, lower-volume roadways that are continuous over long distances may function as arterials in the rural fringe areas.

The current standard for arterial streets is as follows:

<u>Characteristic</u>	<u>Principal Arterial (Boulevard)</u>	<u>Minor Arterial (Undivided)</u>
Right-of-way	100'	70'
Pavement width	44'	27'
Lane width	11'	11' to 12'
Moving lanes	4	2
Median	30'	0'

This plan proposes to increase the right-of-way width of the principal arterials from 100 feet to 120 feet, allowing future widening and intersection improvements, as well as providing for underground utilities, an eight-foot trail section, and an increased green space. A wider right-of-way also allows design flexibility to accommodate nature features. The lane width would be increased to 12 feet for a total pavement width of 48 feet. A minor arterial street section is proposed to increase to 100 feet, with an undivided pavement width of 36 feet.

Plan Implementation

Implementation of thoroughfare system improvements occurs in stages over time as the City grows and builds toward the system reflected by the thoroughfare plan. Individual thoroughfare improvements may be constructed by a variety of implementing agencies, including the City, East Baton Rouge Parish, and/or the Louisiana Department of Transportation and Development (LaDOTD), as well as private landowners for roadways within or adjacent to their property. Road construction can be implemented by individual entities or in partnership, as is the case for construction of roads that are identified in the Transportation Improvement Plan (TIP) of the Capital Region Planning Commission (CRPC).

In the administration of the Thoroughfare Plan, special cases will arise where physical conditions and development constraints in certain areas conflict with the need for widening of designated thoroughfares to the planned right-of-way width and roadway cross section. Such circumstances require a degree of flexibility in the implementation of the plan. Acceptable minimum design criteria and special roadway cross sections may have to be applied in constrained areas where existing conditions limit the ability to meet desirable standards. Special roadway cross sections should be determined on a case-by-case basis when a unique design is necessary, and these exceptions should be subject to approval by the Department of Public Works. Otherwise, standard roadway cross sections should be used in all developing areas and, whenever possible, in existing developed areas.

The City, Parish, and LaDOTD, as well as residents, landowners, and subdividers, can utilize the thoroughfare plan to make decisions relating to planning, coordination, and programming of future development and transportation improvements. Review of preliminary and final plats for proposed subdivisions in accordance with the City's subdivision regulations should include consideration of compliance with the thoroughfare plan in order to ensure consistency and availability of sufficient rights-of-way for the general roadway alignments shown on the plan. It is of particular importance to provide for continuous roadways and through connections between developments to ensure mobility. By identifying thoroughfare locations where rights-of-way are needed, landowners and subdividers can consider the roadways in their subdivision planning, dedication of public rights-of-way, and provision of setbacks for new buildings, utility lines, and other improvements located along the right-of-way for existing or planned thoroughfares.

Chapter Five

Community Resources

This chapter addresses the preservation of the community’s historic and environmental resources. According to residents who participated in this plan, protecting the long-term integrity of the Historic Village, other locally significant structures and areas, and the community’s natural setting is essential to its character and livability. The focus of this chapter is on the policies and practices necessary to sustain the community’s highly valued resources.

An increasing attraction to Zachary is its history, which may be viewed through its Historic Village and the many historic residences. A heritage tourist may engage in a multi-faceted cultural visit, beginning in Downtown with the viewing of its historic buildings and continuing to the Historic Village and Annison Plantation. As an emerging opportunity, Zachary should continue to strengthen its identity as a historic and cultural destination through ongoing preservation efforts, infrastructure improvements (streetscaping, parking, signage, gateways, etc.), beautification, and marketing.

The environmental focus of this chapter is to protect the land, water, and air resources that shape the physical form of the City. There are a number of environmental resources in the community including lands along the bayous and drainage ways, floodplains and wetlands, and woodlands, each serving a vital resource function and proving natural amenities that warrant protection. This chapter reflects the City’s commitment to preserve its natural resources through policies aimed at maximizing resource protection through good land planning and sustainable development practices.

Purpose

The community’s historic buildings and districts and its environmental resources are amenities that warrant protection, preservation, and enhancement. Therefore, this chapter presents strategies for preserving historic resources through ordinances, improvements and aesthetic enhancements, and additional programming. Likewise, there are a myriad of environmental resources that contribute significantly to the character and development pattern of the community. These environmental resources require preservation through ordinance amendments, strengthened policies, best management practices, and effective implementation.



Downtown offers a rich collection of historic buildings that offer great opportunities for preservation.

Issues and Opportunities

This chapter focuses on the issues that must be addressed for the community to achieve its vision for preserving its historic and environmental resources. The origin of these issues was the commentary of residents during the early stages of this plan development process. These comments were supplemented by the observations and insights of City staff, the Citizens' Delegation, and consultants.

Strengthening the Historic Identity of Downtown

Historic preservation will become increasingly important as the City and its housing and buildings age over time, as is evident in the original town area. Zachary has a collection of older housing and building stock that reflects multiple periods of history. This assortment of older buildings and styles creates a sense of historic character that creates a 'living history' of the past. Businesses and homes characterize a majority of the historical areas – a reflection of how these areas are still functional and an integral part of the community.

An initial step has been taken to survey individual structures and define the nature and boundaries of a historical district and a separate garden district, as displayed in **Map 5.1, Garden and Historic Districts**. This is a good first step toward delineating the special districts and seeking their designation on the National Register of Historic Places or as a locally significant historic district. These designations open opportunities for state and federal grant assistance, foundation funding, and increased regulatory oversight. As the process of district creation unfolds, property and business owners and other stakeholders should be engaged as advocates for preservation and reinvestment.

GOALS







- ▶ Identify historical contributing and non-contributing buildings
- ▶ Designate specific areas as local, state, or nationally registered historical districts
- ▶ Prepare design guidelines or standards to guide redevelopment and preservation efforts
- ▶ Create a façade rehabilitation program for historic buildings
- ▶ Form a Business Improvement District (BID) to sponsor infrastructure and streetscape projects
- ▶ Program events to support businesses in the historical district
- ▶ Mitigate barriers to pedestrian and bicycling access to and within the historic district
- ▶ Increased transportation options for visitors and residents to access the historical district

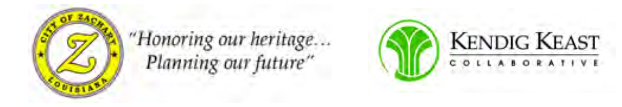
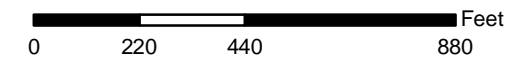
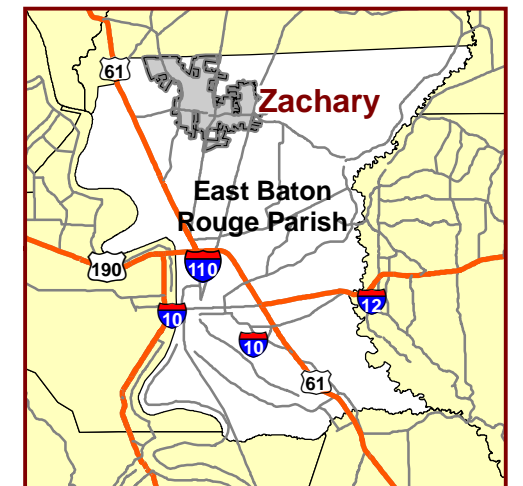
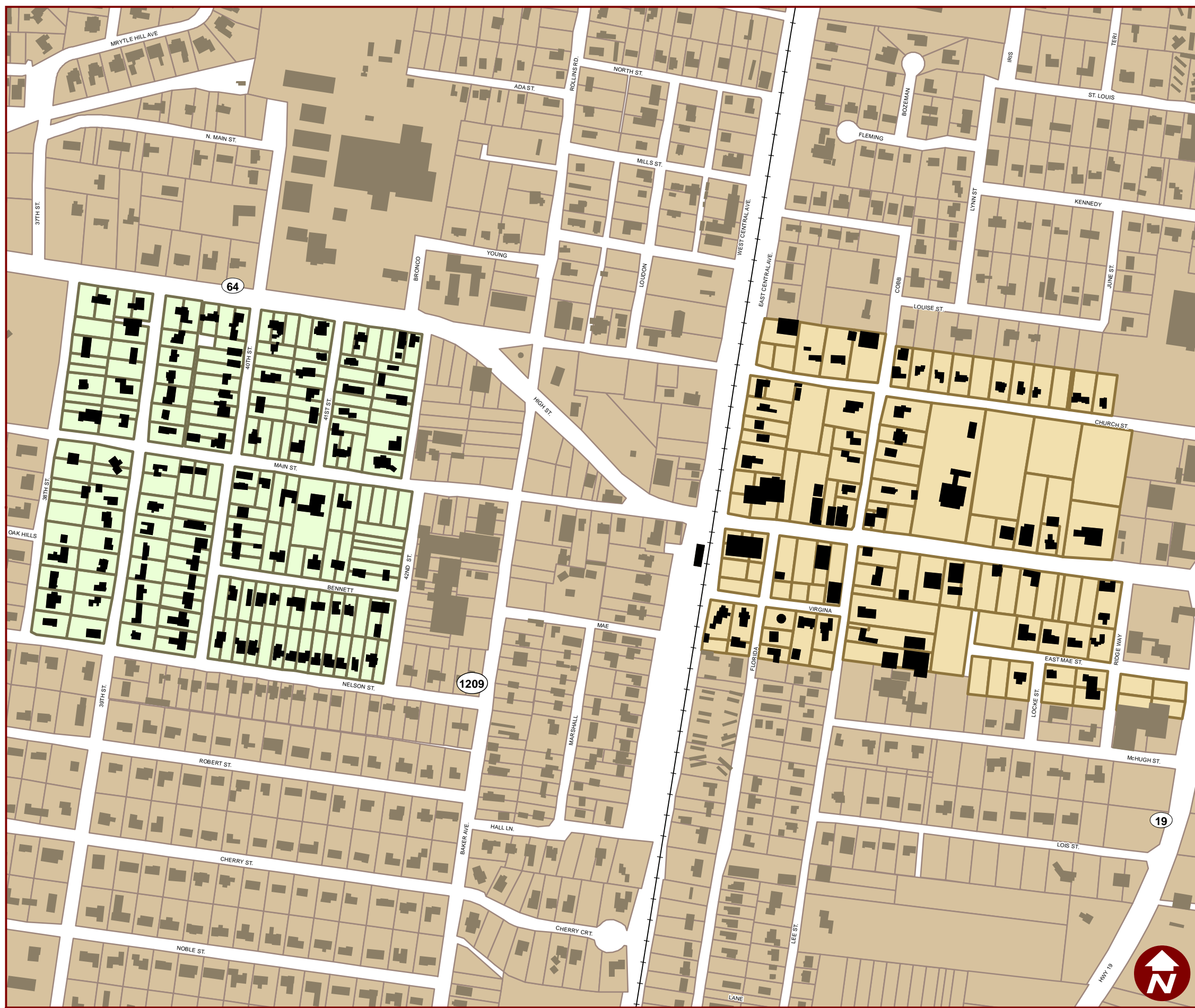
Recommendations

1. Evaluate the warrant for designation of Downtown as a federal and/or state registered historic district. Criteria for national historic districts include areas:
 - a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
 - b. that are associated with the lives of persons significant in our past; or
 - c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

Map 5.1

Garden & Historic Districts

-  Garden District
-  Historic District
-  Buildings in Historic District
-  Buildings
-  Parcels
-  Railroads



- d. that have yielded, or may be likely to yield, information important in prehistory or history.¹
- 2. Designate local historical districts with boundaries that include the contributing buildings identified in a historical survey. Contributing buildings are those that give the historic district a special character. This local district may allow for special design review guidelines and procedures. These guidelines should be unique to the historic and garden districts to preserve their individual historic integrities.
- 3. Draft design guidelines or standards for development, redevelopment, and any structurally significant modifications within the two districts. These guidelines, however, should allow sufficient flexibility to permit updating of buildings for fire safety and energy efficiency improvements while retaining their historic integrity.
- 4. Utilize federal, state, or local financial assistance to create a façade rehabilitation program that would help property owners make historically significant improvements to their buildings. This program may involve, but is not limited to, low-interest loans, grants, design assistance, and/or an expedited approval for façade or sign improvements. A successful pilot project can aid in promoting this type of assistance and serve as a model to be followed by other property owners. Such projects should be promoted in press notices and marketing materials.
- 5. Offer incentives for historically conforming development and/or redevelopment in the historic and garden districts including exemption of building permit fees, grants, and waivers of standards related to setbacks, parking, and other constraining provisions.
- 6. Create a Business Improvement District (BID) to facilitate public improvement projects in a downtown historic district. This district would need to be supported and led by Downtown land and business owners. Once a majority of the property owners have agreed to self-imposed fees and restrictions, the City should consider partnering with the BID Board to prepare a plan and identify

Drehr Place Historic District
 (added 1997 - East Baton Rouge County - #97001422)
 Also known as **See also: Sanders House**
 Roughly bounded by Government, 22nd, Myrtle, and St. Rose Sts., Baton Rouge
 (370 acres, 87 buildings, 2 objects)

Historic Significance: Event, Architecture/Engineering
 Architectural Style: Tudor Revival, Bungalow/Craftsman, Classical Revival
 Area of Significance: Community Planning And Development, Architecture
 Period of Significance: 1900-1924, 1925-1949

Owner: **Private**
 Historic Function: Domestic
 Historic Sub-function: Single Dwelling
 Current Function: Domestic

There are nine historic districts in East Baton Rouge Parish including Drehr Place as listed in the above database.

Business Improvement Districts (BIDs) represent an entrepreneurial approach on behalf of downtown leaders or participating businesses to proactively address their business area. Benefits of BIDs include:

1. protecting and enhancing public spaces through the deployment of "security teams" or "ambassadors;"
2. initiating services not provided by public agencies such as sidewalk cleaning, marketing, promotions, business retention, and recruitment;
3. advocating on behalf of downtown businesses, allowing them to communicate a unified vision/message to aid the district's revitalization;
4. creating cooperation among competitive businesses, which allows them to engage in activities that they would not be able to do on their own;
5. generating financing for capital improvements for more attractive streetscapes; and
6. researching and planning services such as collecting and analyzing economic and demographic data, monitoring progress, setting and revising strategic goals, and developing multi-year redevelopment programs.

Source: Department of City & Regional Planning
 UNC-Chapel Hill, April 19, 1999

¹ Source: National Register of Historic Places, U.S. Department of Interior

prioritized improvement projects. The City should also consider matching the contributions of the BID.

7. Motivate shoppers to patronize the Downtown historical district through programming designed to draw residents and visitors to special events and activities. Special events would help create business activity in the district, thereby contributing to its economic viability.
8. Enhance the availability of the historic Downtown to visitors and residents by offering better connections and improved walkability. As recommended in *Chapter 4, Throughfares & Public Transit*, limitations in pedestrian access and amenities negatively impact the district’s accessibility and appearance. This not only affects the number of visitors, but also diminishes financial gains for area businesses. Potential gateways and streetscaping improvement sites are illustrated in **Map 5.2, Historic Village and Downtown Streetscaping**.
9. Improve transportation access to Downtown and the Historic Village through improved visitor parking and a bus drop-off area.

Historic Village



The Annison Plantation site offers opportunities to create an historical experience that focuses on a different era of Zachary than the Downtown.

Efforts on behalf of the City (Historic Village) and Zachary Historical Association foster an attitude of acceptance and celebration of the historic legacy in Zachary. The Historic Village, situated at the corners of Florida and Virginia Streets, was constructed to keep the history of Zachary alive. With three renovated turn-of-the-century homes – Miss Sis’s Magic House, The Allison Agricultural & Rural Life Center, and the McHugh House – the Village serves as an attraction and educational center for residents and visitors of Zachary. Further enhancement and expansion of this area are important in the City’s continuing preservation efforts. Expansion may occur through improvement of physical spaces, such as historic buildings, landscaping, gateway and way-finding signage, heritage trail opportunities, and the recently acquired Annison Plantation.

GOALS










- ▶ Program historic preservation activities at the Historic Village
- ▶ Improve and maintain the Historic Village
- ▶ Improve the amenities at the Annison Plantation

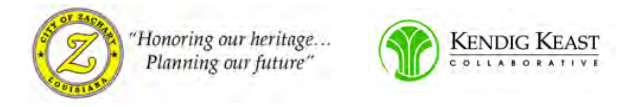
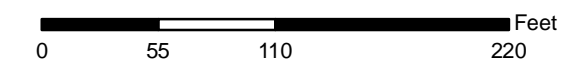
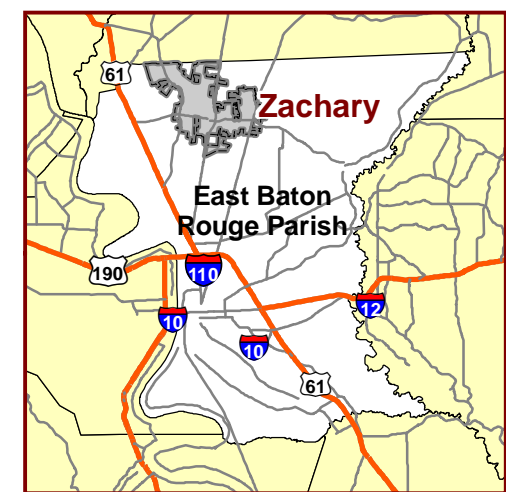
Recommendations

1. Continue to support the efforts of the Historic Village. This project involves historic preservation of buildings and districts, but also offers cultural education for students and adult visitors through guided tours and programs. The success of this program should be encouraged as it can increase the vitality of Downtown and serve as a model for local preservation efforts.
2. Improve the existing land and buildings in partnership with local private and public entities. The initial success of the Historic Village lends itself to further investment. One improvement would be building and landscape maintenance and the provision of dedicated parking. Other area-wide

Map 5.2 Historic Village and Downtown Streetscaping



-  Downtown Gateway
-  Streetscape Opportunity
-  Historic District
-  Parcel
-  Buildings
-  Buildings in Historic District
-  Major Water Bodies
-  Streams
-  Railroads



improvements may include the addition of street trees, landscaping, benches, wayfinding signage, and intersection improvements.

3. Establish a facility improvement plan for the Annison Plantation. This site focuses on the oldest historical period in Zachary – the Pre-Civil War era. It should be a site of cultural learning for school-age children and visitors, in addition to gatherings and outdoor enjoyment. Opportunities for mid- to large-scale meeting spaces, such as a barn or covered outdoor gathering area, should be explored. Other potential improvements include the cemetery, extending trails to nearby neighborhoods, providing additional parking, and installing appropriately designed amenities.

Environmental Resources

There are a number of natural resources within and around Zachary that provide a scenic setting. These resources include a vast network of bayous and stream courses, ponds and wetlands, floodplains and their riparian areas, densely vegetated areas, and the farms and pastures that envelope the City. These areas are sensitive to urban development, yet they may be used to fulfill the community's objectives of environmental protection, resource management, and natural stormwater runoff.

During the public involvement process residents spoke of Zachary as a community whose character is shaped by its natural environment and resources. There were also many comments made regarding the desire for more green space integrated as an amenity into new developments. In addition to the preservation of green space and the physical landscape, there is a need to promote air quality improvements and energy efficient building design in the community. Through good land planning and responsible development practices, resources can be preserved and effectively integrated into developments without compromising private interests.

Sensitivity to the Environment and Resource Conservation

There are areas interspersed throughout Zachary that possess valuable natural resources warranting protection. Lands along the Comite River, adjacent to each of the bayous, along drainageways, and within floodplain areas and wetlands offer opportunities for resource conservation and land preservation. While these areas are sensitive to development, they may be used to fulfill other objectives including environmental protection, resource management, and natural stormwater runoff.

Residents spoke of Zachary as a community that is unique and attractive. There were many comments regarding the desire for more green space integrated as an amenity into development. This objective may be achieved by adopting sound environmental conservation and responsible land development practices. Sensitive areas along the bayous and within the floodplain and wetlands may be incorporated in developments amenities, while sustaining their resource function. Doing so requires a regulatory system that balances development efficiency and resource protection. Responsible land planning practices will preserve resources and effectively integrate them into development without compromising private interests.

GOALS

- ▶ Promote infill development to avoid premature, peripheral growth and disturbance of rural lands
- ▶ Reuse vacant and underutilized buildings and sites
- ▶ Cluster to preserve open space and retain resource functions
- ▶ Develop mixed-use projects to improve accessibility and connectivity
- ▶ Encourage natural stormwater management systems
- ▶ Adopt near- and long-term energy conservation strategies

Recommendations

1. Adopt (construction and post-construction) Best Management Practices (BMPs) to help reduce pollutants from entering local bayous, drainage courses, and stormwater systems, while also controlling erosion and sedimentation. This will result in better functioning stormwater systems, improved water quality, sustained habitats, and reduced flooding.
2. Increase the maintenance of the stormwater system to allow for an efficiently functioning series of stormwater drains and collection areas. Lack of precautionary measures result in flooding during peak storm events.
3. Adopt standards to require stormwater management systems that reduce the level of runoff equal to that of pre-development levels. For infill and redevelopment projects, adopt alternative standards for achieving acceptable post-development runoff levels.
4. Prepare a City-wide master drainage plan as a policy guide for subdivision review and development.
5. Incorporate provisions into the zoning and subdivision ordinances for low impact development practices. This approach uses site design techniques to store, infiltrate, evaporate, and detain runoff,

which address runoff volume, frequency, and water quality. Examples of site design elements include on-lot micro-storage, functional landscaping, open drainage swales, reduced imperviousness, minimal grades, and depression storage.

6. Require the use of bio-swales in parking lots and along roadways to collect and hold stormwater, enhance recharge rates, and improve water quality.
7. Use bio-retention areas or rain gardens to collect rainwater after storms and divert it from the stormwater system. For instance, runoff from parking areas can channel water into constructed wetlands or native planting areas. Identify sites for potential bio-retention areas that can assist the storm drains in removing water from the roads. These sites might also be effective in reducing the need for stormwater system extensions into difficult to reach locations, sensitive areas, or sites that have high engineering costs.

GOALS OF LOW IMPACT DEVELOPMENT (LID)

The primary goal of LID is to mimic pre-development site hydrology by using site design techniques that store, infiltrate, evaporate, and detain runoff. These techniques help to address runoff volume and frequency and quality of receiving waters and ensure groundwater recharge. Goals include:

- ◆ Develop the full potential of environmentally sensitive site planning and design;
- ◆ Provide economic incentives that encourage environmentally sensitive development;
- ◆ Reduce construction and maintenance costs of stormwater and transportation infrastructure;
- ◆ Introduce new concepts for stormwater management such as micromanagement and multifunctional landscaping;
- ◆ Encourage flexible regulations that allow for innovative engineering and site planning; and
- ◆ Encourage public education and participation in environmental protection.

Source: Growing Smarter: Guidelines for Low Impact Development in the Pontchartrain Basin

8. Consider the design of new municipal buildings as pilot projects for innovative rainwater capture and treatment techniques. Use interpretive displays to educate residents about the science and benefits of such conservation efforts.
9. Incorporate incentives by way of expedited approval, local tax credits, or other alternatives for integrating water runoff reduction practices in land development. This is particularly applicable for high-density residential and “big box” development that have higher ratios of impervious surfaces.
10. Adopt tree preservation and landscaping requirements to increase the level of urban tree cover.
11. Explore the feasibility of using “green design” standards or LEED² certification for municipal projects. Consider phasing in incentives for integrating conservation practices into private development projects. Louisiana’s 2007 Qualified Allocation Plan (QAP) establishes tax credits for buildings incorporating “green design” standards.
12. Adopt resource protection standards to preserve stands of vegetation and other environmentally-sensitive lands. Coupled with the protection standards should be provisions for development clustering to reward the preservation of open space with density bonuses.
13. Seek to acquire, by way of conservation easements or by fee simple acquisition, highly sensitive lands and conservation sites. These areas may include land along the bayous, drainage canals, within the Federal Emergency Management Agency (FEMA) defined floodway, wetland and wildlife habitat areas, or historically or culturally significant sites.
14. Organize a land-bank program where property owners may deed their undevelopable land to the “bank” for long-term conservation and protection, with tax benefits and offsetting zoning incentives for transferring development density to the developable portions of their land.

Example of Possible Points for LEED-NC Qualification

The sections are: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation and Design Process. Each section addresses a different aspect of sustainable buildings. Examples of some of the requirements under selected sections are provided below:

- *Sustainable Sites*: Brownfield Redevelopment
- *Water Efficiency*: Water use reduction – 20% reduction
- *Energy and Atmosphere*: Optimize energy performance - Points granted by percent reduced.
- *Materials and Resources*: Construction waste management - Divert 50% from disposal
- *Indoor Environmental Quality*: Low-emitting materials - Paints, adhesives, carpets, etc.
- *Innovation and Design Process*: This section allows for developer innovation. The developer is required to provide a description and justification for the specific measure they selected.

Source: Louisiana Developer Green Building Guide (Global Green USA)

Protection of Natural Amenities

There are a variety of areas throughout and around Zachary that serve as important natural resources necessitating environmental protection. Lands along the Comite River, Copper Mill Bayou, Cypress Bayou, White Bayou, and within the floodplain areas (mainly through the northern and eastern sides of town) offer unique opportunities for resource conservation and land preservation.

Restoring and protecting natural areas can act as a catalyst for economic development and provide for recreation and attractive amenities for the community while also being used for stormwater management. Therefore, these areas should be protected from encroachment or removal by development.

² LEED® (Leadership in Energy and Environmental Design) is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings.

GOALS

- ▶ Use the development regulations and standards to ensure environmentally-sensitive planning and development
- ▶ Adopt “eco-friendly” practices in parks and open space planning and maintenance programs
- ▶ Preserve open space to enhance livability, aesthetic quality, and natural beauty
- ▶ Sustain and improve the quality condition and attractive appearance of public spaces
- ▶ Conserve natural resources through parkland acquisition, open space preservation, and environmentally-sensitive planning

Recommendations

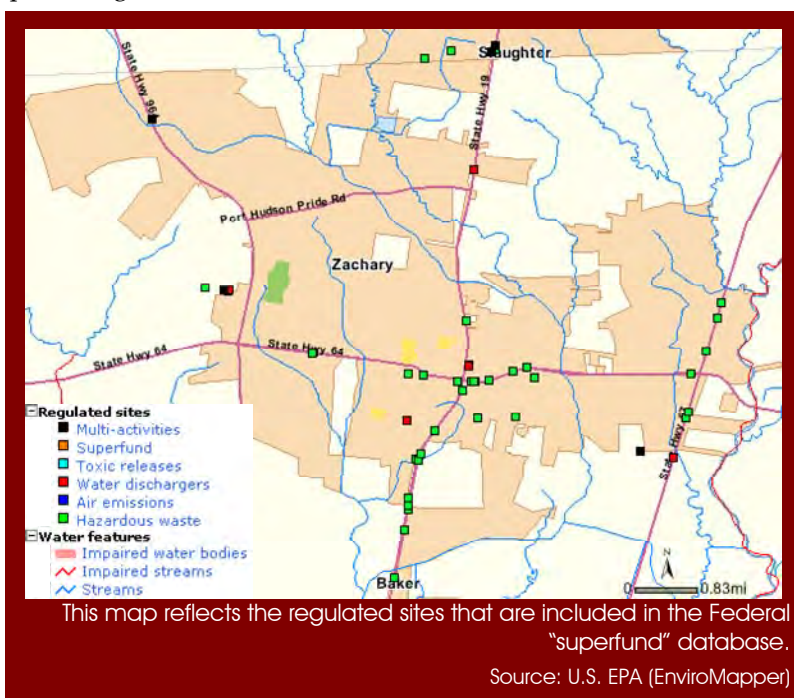
1. Incorporate into the City’s development standards provisions for resource protection. The resource area may be preserved in its native state, managed by a local conservancy, or dedicated to the City as permanent passive open space or active recreation space. A density bonus may offset and act as an incentive by allowing an increase in the overall development yield. The City must establish clear criteria for land dedications to avoid impractical sites with limited value for public use.
2. The new Unified Development Code (UDC) should include stormwater management provisions that address not only safe and effective conveyance of storm drainage, but also requirements to maintain the quality of area streams and aquifers by reducing or eliminating pollutants in stormwater runoff. Strategies include avoidance, minimization, and mitigation. Avoidance techniques may include cluster development; floodplain, drainageway, and wetland resource protection standards; and positive surface drainage in natural channels. Minimization techniques may include water gardens, rain barrels or cisterns, pervious pavement, vegetated swales, riparian buffers, swale blocks, and curbs without storm sewers. Mitigation measures are necessary where adverse impacts cannot be avoided or minimized.
3. Establish standards and procedures for park maintenance to eliminate adverse risks to the quality of adjacent streams and water bodies by way of “no-mow” zones, staged mowing heights in accordance with distances from the channel edge, prudent and well-supervised application of pesticide and herbicide products, and other minimization techniques.
4. Establish development incentives, such as reduced street widths and increased density, to encourage dedication of open space easements adjacent to collector and arterial street rights-of-way, along creeks and drainageways, and within major developments.
5. Incorporate open space at each of the community entrances and in other areas, and acquire land for permanent open space along LA 19 and LA 64 to visually enhance these corridors and promote regional recognition.
6. Acquire excess rights-of-way, vacated alleys and easements, areas beneath overhead power lines, irregularly-shaped parcels, and other non-developable tracts for utilization as public open space, plazas, and gardens.
7. Seek to acquire highly sensitive lands and conservation sites to preserve as public open space or recreation areas.

Adopted April 5, 2010

8. Acquire conservation easements along the Comite River, Cypress Bayou, White Bayou, Doyle Bayou, and other sensitive lands to protect these valuable natural resources from encroaching development and to utilize otherwise unusable lands.
9. Identify the boundaries of the regulatory floodways and consider acquisition of a riparian buffer area through fee-simple or conservation easement methods.
10. Identify areas of repetitive structure flooding where mitigation activities may result in publicly owned open space.
11. Amend the subdivision regulations to allow the use of conservation, preservation, and clustering subdivision techniques, which allow flexibility in lot size, setbacks, and other area standards as an incentive for an increase in open space, preservation of natural areas, and set-asides for wetlands and other sensitive habitat areas.
12. Preserve the environmental quality of the Comite River, Cypress Bayou, White Bayou, and Doyle Bayou, as well as area lakes and water bodies, by protecting valuable open space and habitats, improving drainage and water quality, and providing sensitive eco-recreational facilities.
13. Enforce sound floodplain management practices to maintain the water carrying capacity of drainageways, channels, and floodplain areas.

Land Pollution and Waste Management

Land pollution has lasting effects on the environment in the form of soil and water contamination that may extend well beyond the boundaries of a polluted site. Leakage of hazardous material into the soil may cause local ground contamination that prohibits the site from being used for residential purposes or may be infeasible for redevelopment due to the cost of required cleanup. This same contamination may also spread to the groundwater system or an above ground stream and extend great distances resulting in widespread effects that are difficult to remediate and expensive to resolve. Typical examples of contaminated sites include old gas stations, chemical factories, petroleum refineries, waste facilities, rail yards, and junk yards, among others. Brownfields include currently operating waste facilities such as recycling plants, waste transfer stations, and municipal and private landfills.



GOALS

- ▶ Create a brownfields inventory that covers the proposed zone of influence
- ▶ Collaborate with local operating agencies and state officials for responsible waste management
- ▶ Promote recycling and increasing the percentage of recycled materials recovery
- ▶ Protect the groundwater from contamination sources

Any improvement to the conditions or infrastructure for walking, biking, or transit is an improvement for air quality. These transportation options could all be listed as congestion mitigation and air quality improvements. These strategies and innovations represent the ability to "think regionally and act locally."

Source: US EPA

Recommendations

1. Create a brownfield inventory to establish a searchable listing of properties that are known to or potentially contain soil contamination through environmental testing (or those already included on the EPA brownfields list). The inventory should include a parcel map with brownfields sites identified and a corresponding database with information about the type of contamination.
2. Forge a collaborative effort in the planning of new or expanded waste facilities for recycling or trash disposal. Planning efforts should focus on site design, transportation connections to the sites (truck routes), avoiding potential leachate contamination, and operating nuisances (noise, odor, and lighting).

3. Expand the recycling program (and trash pick up) concurrent with community growth. Consider expanding the current curb-side recycling program to include niche markets that may not be participating as heavily as a typical residential home, such as businesses and apartment buildings.
4. Expand the recycling program to all community buildings and public places.

Air Quality

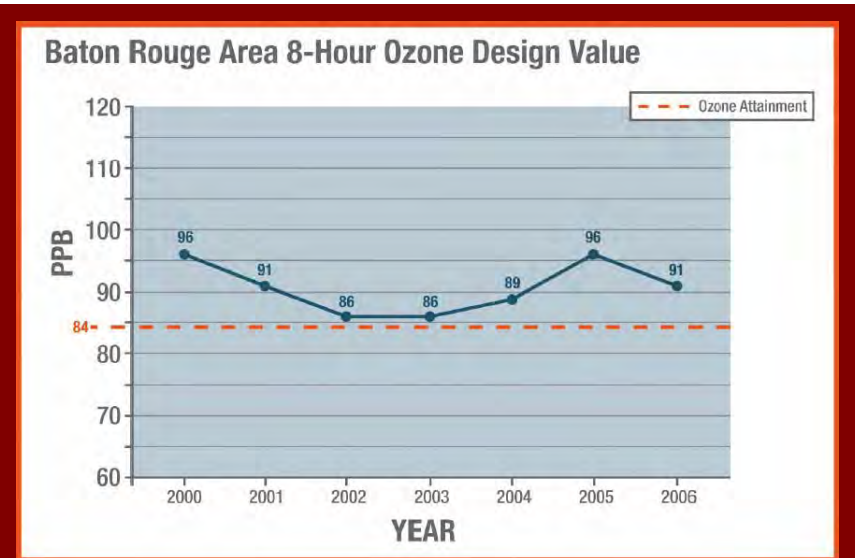
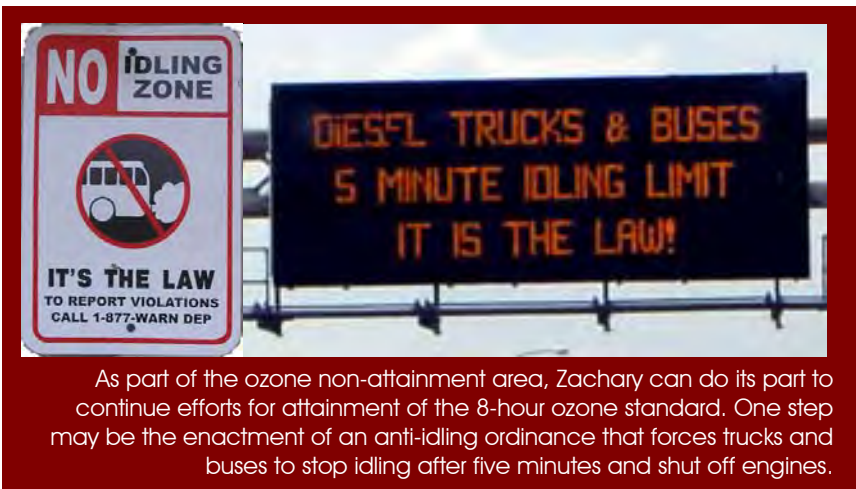
Zachary is situated in an ozone attainment airshed – the five-parish Baton Rouge metropolitan area – which avoids the federal red tape associated with economic development in nonattainment areas. Under the previous one-hour ozone standard, the Baton Rouge ozone non-attainment area was recently ruled as being in “attainment” in February 2010. Previously, the Baton Rouge area did meet the one-hour standard, which can bring economic development penalties in the form of the Section 185 fee program. However, the recent change to attainment status bodes well for air quality and future development prospects. As part of the broader airshed, Zachary can do its part to continue efforts for attainment of the newly instituted 8-hour ozone standard.

GOALS

- ▶ Develop a street tree planting program together with ordinance provisions for tree and open space preservation and landscaping
- ▶ Collaborate with the Louisiana Department of Environmental Quality and U.S. Environmental Protection Agency Region 6 to monitor air quality in the region
- ▶ Implement the alternative transportation strategies identified in *Chapter 4, Thoroughfares & Public Transit*

Recommendations

1. Require the planting of street trees to assist in the improvement and management of air quality levels, and to help mitigate the effects of urbanization. In addition to cleaning the air, street trees improve property values, enhance community aesthetics, reduce the urban heat island effect, provide wildlife habitat, are proven to reduce vehicle speeds in neighborhoods, create an appealing pedestrian environment, and soften the urban environment. Preserving trees on individual sites during development may be achieved by mandating that larger trees are preserved and those removed are replanted. Enhanced landscaping requirements for new developments can also contribute to preserving trees and green space while making development attractive.
2. Coordinate with the Louisiana Department of Environmental Quality and U.S. EPA Region 6, to monitor the air quality and stay alert as to any changing air quality conditions. The physical health of Zachary residents requires that adequate air quality be maintained. Additionally, there are many negative economic implications to "serious" or "severe" non-attainment areas that should be avoided, such as limitations on industrial development and expensive remediation planning.
3. Seek alternative transportation solutions to be enacted at the local and regional levels to preserve air quality. Transportation impacts represent some of the largest contributions to poor air quality, with up to 40 percent of the pollution levels resulting from nonpoint source transportation causes. As highway and air transportation connections increase in the region, such as the proposed Baton Rouge Loop, there will likely be subsequent deterioration in air quality.



Exposures to ozone can:

- Reduce lung function, making it more difficult for people to breathe as deeply and vigorously as normal;
- Irritate the airways, causing coughing, sore or scratchy throat, pain when taking a deep breath and shortness of breath;
- Increase frequency of asthma attacks;
- Inflammate and damage the lining of the lung;
- Increase susceptibility to respiratory infection; and
- Aggravate chronic lung diseases such as asthma, emphysema, and bronchitis.

Source: US EPA and Louisiana DEQ



The City of Frisco, Texas recently built a joint City Hall and Library that features green design concepts.

4. Reduce congestion at local intersections by coordinating traffic signals so traffic flows are smooth. Many of the existing lights are not timed properly or do not allow adequate left turn time. The resulting traffic tie-ups create congestion that increases delays. Since the City does not have control over the timing and installation of lights, it is important that the City works with the Parish and LaDOTD in addressing this situation.

Energy and Building Efficiency

Energy usage affects the environment through the production of energy by traditional fossil fuel sources, development of new energy infrastructure, and exploitation of natural resources to recover new sources of raw fossil fuels. Much of this energy usage is involved with transportation, but there is a large amount in the everyday operation of buildings. The energy usage of buildings can be reduced through better design and conservation practices. The City should mandate that municipal projects meet building energy efficiency standards and provide incentives to encourage an improved energy efficiency of residences

GOALS

- ▶ Increase energy efficiency through better design of development projects
- ▶ Reduce municipal energy usage by 10 percent or more

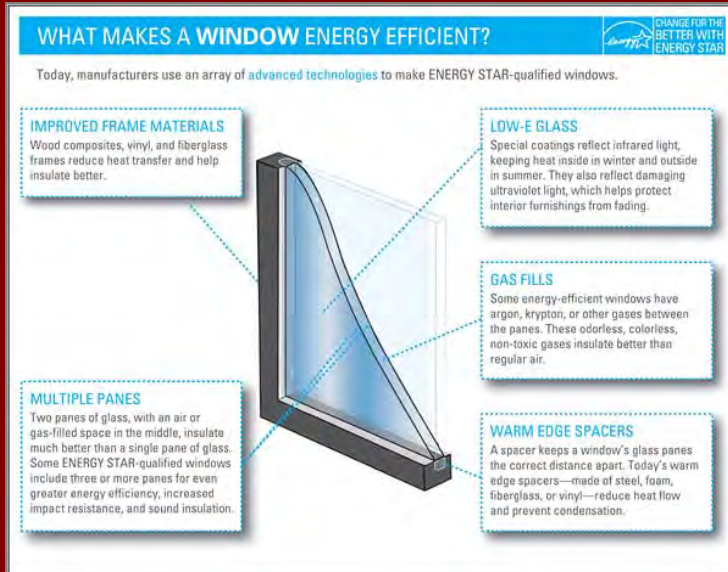
and commercial buildings.

Recommendations

1. Evaluate the effectiveness of the 2007 International Building Code in regards to building energy

efficiency. This new code, which went into effect on January 1, 2007, incorporates energy efficiency standards into the Zachary building code for the first time. While judging its effectiveness, the City can encourage higher levels of energy and water efficiency through voluntary practices in both site and building design.

2. Create a city-wide energy task force. Existing municipal facilities could benefit from a task force that meets monthly to identify energy saving measures. Initial efforts could focus on building lighting, street lights, building heating/cooling, and water usage.
3. Adopt a long-term energy strategy to include an energy plan that enumerates reduction goals based on the current energy usage. A modest reduction of 10 percent in building energy usage is



Although most energy-efficiency measures will pay for themselves over a few years, tax rebates exist that will create a small immediate payback. The Home Energy Rebate Program offers a rebate of up to \$2,000 to Louisiana homeowners that build or retrofit their homes to achieve a high level of energy efficiency. This program, as well as the home energy loan program, is administered by the Department of Natural Resources. There are tax credits on federal taxes for buying hybrid and energy-efficient cars, putting in energy-saving windows and doors, and buying Energy Star appliances.

achievable under such a plan. The first step is to undertake an energy audit in conjunction with Intergy. The results of that audit should give rise to municipal policies aimed at electricity reduction solutions that save money while benefiting the environment.