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## Landscape overlay zoning district ordinance: for the Lafayette "oil patch promenade", Highway US 90, Lafayette Parish, Louisiana

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LANDSCAPE OVERLAY ZONING DISTRICT ORDINANCE: FOR THE  
LAFAYETTE “OIL PATCH PROMENADE”, HIGHWAY US 90,  
LAFAYETTE PARISH, LOUISIANA

A Thesis

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
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in

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by  
Neal W. Kessler  
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## **Abstract**

The city of Lafayette, Louisiana is on the threshold of developing a major transportation artery (the I-49 corridor) that will allow non-stop traffic flow through the city. The southern boundary of Lafayette, which is currently inhabited by industrial based business (oil service companies, storage yards, restaurants, and truck lines), will be intersected by this interstate. The area is not visually pleasing and needs direction to create a setting that reflects the unique personality of Lafayette.

In recent years, landscape architects and planners have begun to employ a method of zoning called overlay district landscape ordinances and overlay zoning districts to help supplement zoning in already developed areas. The standards found in overlay ordinances work to encourage thoughtful design and land use compatibility.

This thesis has two purposes. The first was to develop a model landscape overlay zoning district ordinance for the six-mile area along US Highway 90 between Albertsons Drive, in Broussard, Louisiana and Kaliste Saloom Road, in Lafayette, Louisiana. Through consulting other similar ordinances, site exploration, and study, a model ordinance was formulated. The primary goal of the landscape overlay ordinance was to unify several different land use types found in the project area into a “green” gateway to welcome visitors to the area.

The second objective of this thesis work was to document the process followed in creating the landscape overlay zoning district ordinance. This process will be useful for other cities working to formulate similar overlay ordinances of their own.

The resultant material produced by this project includes a model landscape overlay zoning district ordinance and the process of design employed during its creation. The ordinance is a four-part document that includes the purpose, intent, applicability, design standards, and administrative procedures to be followed in the project corridor. Careful documentation of the process of data gathering and ensuing analysis for the project area are included as well. When combined, this information works to create a written design process for others to use in designing their own landscape overlay zoning district ordinances.

# **Chapter 1: Background**

## **Purpose**

The purpose of this thesis is to explore a new method of zoning ordinance writing called overlay zoning districts. The exploration of this subject will manifest itself in two ways. First, it will create landscape overlay zoning district requirements for the city of Lafayette in an industrial corridor and secondly, document the steps taken to develop that ordinance.

Lafayette will soon be in need of a document that works to unify land uses adjacent to the I-49 connector project that looms in its near future. The associated changes of traffic patterns and flow along US 90 through Lafayette will be considerable. In its current state, this area is an unappealing area in Lafayette and it would be well served by an enhancement to its appearance. At the same time, the implementation of this ordinance will improve the environmental quality of this area.

This new document will be a supplement to Articles IV and V of the Lafayette comprehensive zoning ordinance, which cover “general regulations” including land use and building locations to landscape requirements. Article V of the Lafayette comprehensive zoning ordinance deals with the schedule of Lafayette’s zoning districts. At the same time this new document would supplement Ordinance O-128-2001, which includes Lafayette’s newest landscape regulations. This new zoning document would, in turn, help the city by attracting tourists and revenue, assisting in cleaning the environment, and giving an overall benefit to the health and welfare to both residents and visitors alike. Therefore, the need for an organized document that will help to identify and arrange types of usage spaces is imperative. This thesis will create such a document in the form of an overlay ordinance.

The second purpose of this thesis is documentation of steps taken to create an ordinance. The common practice of cutting and pasting ordinances from one city to another has yielded unoriginal and sometimes useless ordinances. A goal of this project is to document the process of ordinance creation. This straightforward process will help cities to draft and design more creative and unique areas within their cities. At the same time it will provide clarity in the fields of architecture, landscape architecture, and planning on purposes and uses of overlay zoning districts.

## **Need for landscape ordinances**

Contemporary landscape ordinances date back to the 1930s in the United States, according to the book *U.S. Landscape Ordinances, An Annotated Reference Handbook*. As the twentieth century progressed, the need for landscape ordinances became greater, largely due to exponential population growth. Affordability made automobile ownership more feasible, which in turn, filled city skies with smog. The rapid population growth, coupled with huge new factories, produced staggering amounts of waste products that polluted the country’s air and water. Both population boom and rapid development of suburban areas found less room for people in the city and pushed city limits further into the rural areas. It was not until the 1970s, according to *U.S. Landscape Ordinances, An Annotated Reference Handbook*, that a conscientious attempt was made to protect the



environment and manage suburban growth through urban legislation. Concern for urban trees, natural areas, sensitive habitats, and designed landscapes became an issue. Citizens and landscape practitioners made it a priority to lessen the footprint mankind had made on the continent; this was done by promoting landscape ordinances which have been termed “green laws.” Programs like Earth Day attempted to make the citizens of the United States realize the importance of plant material and environment in the everyday existence of humans. Unfortunately it was not until the 1990s that the message from the 1970s began to take hold. Cities began to wholly react to many of the over-development problems by enacting landscape ordinances that had been evolving since the 1970s.

## **Zoning**

For many years, cities have divided numerous use areas in an attempt to position similar activities with one another. This classification of land use is called zoning. Zoned areas are generally classified as districts in which a unique set of standards and regulations are to be followed throughout site development. When broken down into its most basic purpose Daniel Mandelker states that zoning “authorizes the local legislative body to regulate and restrict the height, number of stories and size of buildings and other structures, the percentage of the lot that may be occupied, the size of yards, courts and other open spaces, the density of population, the location and use of buildings, structures, and land for trade, industry, residence, or other purposes.” (Mandelker, 1982) Some zoning laws go beyond buildings and lots to regulate site-clearing standards, landscaping standards and even parking lot design layouts. A very important component to zoning is the process of administration of the laws, either through a local government approval process or through the appointment of a special advisory committee, which reviews and approves plans. The process of approvals and their results are the key to a successful zoning law.

Like many cities, the city of Lafayette, Louisiana possesses a comprehensive zoning ordinance that divides use areas into districts which are then given development standards. An example of a zoning district found in the city of Lafayette, Louisiana is classified as I-1 (Light Industrial District). This requirement limits a particular developer to solely developing an industrial project found in this area as defined by the local zoning authority. Examples of the types of business activity that take place in this type of zone are petroleum service businesses, hotels, and auto body shops. Beyond these uses, zoning ordinances can also work to regulate landscape regulations, sensitive habitat protection areas, historic districts, subdivisions, and numerous other types of land use.

## **Landscape ordinances**

In recent years, additions to zoning laws (called landscape ordinances or landscape codes) have been written to assist cities in protecting, preserving, and rebuilding nature in the city as new construction takes place. Landscape ordinances are defined by Abbey as “a public law, requiring public review and approval of a permit, often contained within a zoning ordinance or land use development code, that regulates landscape design, landscaping and landscape installation and maintenance.” In figure 1.1 of *U.S. Landscape Ordinances, An Annotated Reference Handbook* the author documents

some technical issues addressed in landscape ordinances. These issues include front, side, rear and corner street yard landscaping and planting, open space planting, land use buffers parking lot screening and interior plantings, irrigation of planting, protection of landscaped areas, blocking and screening views, maintenance of plantings, sight triangles, garbage and utility service screening, size of plant materials, approved plant species, lighting, median strips, street edges, public rights-of-way, grading and drainage, tree preservation and protection, and habitat/native plant protection. In some cases, a city will adopt either the pieces or the entire documented ordinance of numerous cities ordinances and adopt it as their own. This is a dangerous approach to landscape ordinance writing as it fails to recognize that all cities are unique and have special environmental circumstances.

### **Overlay zoning districts**

In recent years a newer method of ordinance writing called overlay zoning district ordinances helps cities plan better for certain target areas. The city of Nashville, Tennessee is one of many cities implementing such overlay zoning ordinances. Within the intent section of their overlay ordinance chapter they have defined why the overlay district is an excellent alternative for cities. Chapter 17 Section 36 “Overlay Districts” defines the purpose of an overlay ordinance in this way; “overlay districts are established by this title as a means of addressing specific aspects of land use control or development design that transcend conventional zoning district provisions. Included is an overlay district that permits greater design flexibility than otherwise permitted by the conventional standards of this code.”

### **Overlay zoning district examples**

This “flexibility” that Nashville encompasses is what makes the overlay ordinance such an effective tool in zoning. The flexibility of overlay zoning districts also allows a city to sometimes write more stringent standards. Many cities have been able to use overlay districts to help regulate uses in particular areas of their cities. For example the city of Nashville employs overlay district zoning in seven different ways. Like many other cities Nashville has employed a “historic overlay district” found in 17.36 of its zoning code. The aim of such a district is to protect an existing historic district through the regulation of exterior design and the use of construction materials within the district. The resultant effects of this ordinance are meant to stabilize property values, foster civic beauty, strengthen the local economy, and encourage the use of the historic district. Nashville has also established an overlay district around its airport. This overlay district works beyond FAA regulations to regulate the heights of buildings within the flight path, in turn creating safer travel for those coming in and out of Nashville. The city has gone as far as creating an overlay zone for an adult entertainment district. This district keeps the entire adult entertainment businesses in a centralized area away from schools and churches. An interesting overlay district that was established in Nashville addresses the issue of managing growing universities located within their city. Titled the “institutional overlay district”, this overlay endeavors to assist universities plan and grow in a way that is sensitive to their surroundings. Also, Nashville has three separate “urban” zoning

districts that work to regulate development patterns, pedestrian focus areas, and vehicular use routes.

Another city that has creatively used overlay zoning districts is Annapolis, Maryland. Like Nashville, Annapolis has established an overlay district but the district of interest here is found in section 26.67.010 of the city's comprehensive zoning code. The regulations found in this section effect development along a sensitive shoreline. This district prohibits development within one hundred feet of the shoreline. The ordinance allows for variance but has heavy monetary penalties for doing so.

### **Overlay zoning districts in Louisiana**

Cities and parishes in Louisiana have begun to use landscape overlay districts in combination with historical districts, urban corridors, and highway corridors. One commercial overlay district in Louisiana that has been implemented is the Bullard Avenue Urban Corridor District in New Orleans. The components of this ordinance work to develop standards aimed at unifying and regulating development in the area. The landscape portion of this ordinance deals with many elements, the first being creating a wide buffer zone between the street and the properties that front it. It establishes landscape strips or buffer yards between properties. The ordinance also works to minimize the visual impact of parking lots and travel lanes with buffers. This ordinance also uses the tree credit program to help encourage smart development that works to preserve preexisting trees. The city handles variances and approvals through the city council.

Another overlay ordinance in Louisiana is found in the The Old Metairie Area of Jefferson Parish. Though the standards of the Old Metairie Conservation District are focused mostly on the preservation of existing architecture and the historically accurate construction of new property, it does contain some landscape elements. The ordinance regulates tree preservation, sets up a tree registry, and even works to protect a particular tree species found within the district. The most interesting element of this ordinance is the specially appointed committee that deals with the administrative standards of the ordinance. Unlike many other cities, this ordinance goes beyond the parish council to make design decisions and appoints this committee that has a vested interest in this neighborhood.

### **Landscape overlay zoning districts**

Like regular zoning ordinances, a pattern emerged in regulating landscape standards. Landscape overlay zoning districts are beginning to be recognized by some cities as an effective tool to help mitigate the visual and environmental impacts of development as well as a preserve existing natural areas. Overlay landscape ordinances are intended to supplement the regulations of the underlying zoning district. (Abbey, 1992) This type of ordinance writing has been used in some cities around the country. Cities in Louisiana, Tennessee, Mississippi, Colorado and others have begun to use and implement landscape overlay districts.

To revisit Nashville, Tennessee the city has a landscape overlay district that is set up specifically to preserve the character of an existing greenway. The greenway overlay

district is an area in which Nashville has tight restrictions on where and how one can develop land within or adjacent to it. The district also works to expand this preexisting smaller greenway into a larger community wide greenway.

The city of Ridgeland, Mississippi has used the overlay zoning method to help restore a historic shopping district. This overlay focuses on architecture and is regulated by a special architectural review board. However, issues such as sidewalk and street buffers, landscape material size and quality, parking area planting, site furnishings, and landscape buffers are addressed in this ordinance.

The city of Alameda, Colorado used an overlay district method for a corridor that was already developed and historically significant to encourage new interest in the area and increased usage by individuals and businesses. These overlay district plans set standards for architectural, landscape, and streetscape elements within the project boundaries.

As these previous examples illustrate, the ability to overlay and expand an existing zoning ordinance makes the method of overlay ordinance writing an important tool for both planners and landscape architects. The methods of implementation and administration are different from city to city, however architectural or landscape overlay districts are effective because they allow an area already developed to be revived, saved from damaging development, made unified, and in most cases beautified.

## **Methods**

With these examples in mind, the approach to this project will work to accomplish the objectives of the project by first conducting a detailed site analysis of the overall project area to assist the development of the design concept. Within this site analysis, a detailed understanding of how particular individual land use types function within the site will be essential in making the recommendations set forth in the ordinance. It is important to have these detailed site studies to help understand the “geography” of individual building sites and clarify that any overlay plan created is dependent upon its parts. Three different sites will be chosen based on location, business type, and size. Interviews will be conducted with managers or owners of those three selected businesses to understand the specifics of their current site design. The placement of goods, loading zones, utility areas, parking areas, landscape areas, and traffic patterns will all be necessary issues to consider.

The next step will be the actual writing of the model ordinance. Both overall project site and detail site analyses will be incorporated into the new ordinance. The findings from the detail sites will be used to write key elements of the overlay ordinance. In combination with the findings from the detail sites, landscape ordinances including the earlier mentioned and others chosen from around the country will be used as skeletons for writing the overlay ordinance for this area. Key to writing this overlay ordinance is an understanding and working knowledge of existing Lafayette zoning ordinances. This ordinance is important to understand so that proper recommendations can be made.

Lafayette parish’s current comprehensive zoning ordinance was implemented in July 1999. The standards within cover basic zoning and development regulations these standards are overseen by the city council. After the comprehensive zoning ordinance had been implemented for a couple of years some felt it was important to expand the

landscape regulations beyond the very minimal screening, reforestation standards found within the ordinance. This resulted in amendment to the code was drafted that aimed at preservation of trees and open space. Some of the tree regulations were not passed, however, an excellent amendment was passed in August of 2001. The elements of the overlay landscape district will work to enhance and in some cases propose design elements not considered in either the comprehensive zoning ordinance or it's amendments. The compilation of all of earlier mentioned elements will result in the final ordinance document.

The final step in the process will be the documentation of the process followed in writing this model ordinance. Throughout the project, careful notes and observations were recorded, but it is not until this final step that they are recorded as a single document.

## Chapter 2: Literature Review

Due to the limited amount of information written on landscape overlay ordinances or overlay zoning ordinances, it became necessary to reference a variety of source types to locate desired information. Information for this project came from books, the Internet, and ordinances published by cities and given to the Louisiana State University Landscape Ordinance Research project.

Given that the focus of this project was to write and document the process of writing a model landscape overlay zoning district ordinance, literature chosen tended to deal with the elements and purposes of green laws and overlay zoning districts. For this reason, consulting written overlay ordinances was an effective tool in guiding the actual writing of the overlay ordinance. If this project had focused more on proving or disproving the effectiveness of overlay zoning ordinances, it would have been more important to have a tighter focus on research done on these types of ordinances. Also, some books (discussed below) were used to assist in the process of ordinance development, researching native plant materials, green law research, and legal terms and issues common to ordinances.

### Books

As earlier mentioned, Abbey's book is the one of the few published sources in tree laws and landscape ordinance research. Because of this scarcity, many of the books used in this project provided either background or historical information for the Lafayette ordinance.

Beyond the summaries of the many ordinances that were compiled for this work, Abbey's book examines the more detailed points of ordinances and ordinance writing. Abbey goes to great measures to point out different issues found in ordinances from around the country. Also, a brief history and definitions of terms makes this a book that an ordinance writer should possess and refer to often. For this particular project, Abbey's book was used in defining and understanding terms. For example, a diagram in Abbey's book graphically shows the different use areas considered on a site. It was this graphic that helped the author to understand terms like "Street wall" and "Service area". This understanding of terminology made it easier to write standards for the landscape overlay ordinance.

Gary O. Robinette assembled *Local Landscape Ordinances* from a study that collected and dissected ordinances to understand their inner workings. The text is a collection of landscape ordinance pieces in which Robinette inserts comments in places to help guide the reader. The book's collection of diagrams from reviewed ordinances serve as an excellent visual reference of how written standards look in illustrated form. The arrangement of these diagrams compares the standards of one community to another by placing the illustration for the same site design elements next to each other. For instance, this method allows the reader to appreciate the visual difference of a planting bed every twelve parking spaces to another every twenty spaces. Many of the diagrams used in Robinette's book are taken from ordinances around the country and are found within the landscape overlay ordinance to assist in illustrating the intent of that particular standard. Illustrations from other ordinances are also referenced within the project

ordinance. The ability to visualize the effects of the standards being written into the ordinance made it easier to decide on specific percentages and amounts. For example, within Robinette's text, diagrams show the difference between vehicular use areas that are five, ten, and twenty percent landscaped. It was these diagrams that assisted the author in choosing the standard of total vehicular use area landscape.

Kirk Bishop wrote *Designing Urban Corridors* in 1989 for the American Planning Association (APA). This book contains some information useful in small corridor planning, however primarily focuses on larger corridors and greenways. Bishop also included an extensive chapter that concentrates on issues related to the process of planning and designing corridors. Bishop's ideas on planning and designing a corridor were most helpful in defining the goals of the Lafayette ordinance. As earlier mentioned, Bishop's focus is on larger corridors, however, his ideas are still applicable to the smaller scale corridor found within this project. Bishop states one must be firm in the goals of an ordinance but flexible in how they can be attained. The ordinance produced for this project attempted to do this by creating basic standards for designers and a direct method of attaining approvals of plans.

Another APA document, written by Christopher J. Duerksen and Suzan Richman, is titled *Tree Conservation Ordinances*. This manual is an excellent reference for anyone writing a green law involving any type of tree conservation measures. The book goes through the different elements to consider and how to resolve them in an ordinance. It contains excellent cross sections, photographs, and a detailed glossary to reinforce the authors' points. This bulletin also contains information on the use of computers as a graphic aid and sample forms for site-clearing permits. Though this source is somewhat scientific and focused strictly on tree preservation, some of the ideas were applicable to the sections on tree protection in the Lafayette ordinance.

Daniel R. Mandelker wrote an extensive book, titled *Land Use Law*, on zoning and other planning issues. This book clearly defines and outlines issues that may be found in a zoning ordinance or comprehensive plan. In the process of explaining details of ordinances, Mandelker applies actual court cases and the legal issues associated with ordinance writing. Mandelker's book served as an excellent reference. Its main use for this paper was the history and use of zoning ordinances. These historic accounts provided assistance in understanding the reason and the applications of zoning ordinances.

*Design Methods*, authored by J. Christopher Jones, was a valuable source for defining the process for design. His method of non-linear thinking in the linear process of concept development proves to be an excellent tool in the process of overlay ordinance writing. Jones's discussions of design process helped to better verbalize the design process used for this project. However, in the end, his methods proved to be the same as the basic design steps taught in design class.

While writing the ordinance, it was necessary to find information on plant materials native to the area. William Reese organized an impressive collection of plants both native and introduced to the area in his book titled *Acadiana Flora*. The book includes common and scientific names of the plant listings as well as their respective leaf profiles. Reese's book served as an excellent source for its listing of native plant material to the area. This type of material is important to the area, not only for its scenic beauty but also its practicality in this busy corridor.

## Web sites

The Internet served as an important tool in this project because it gave excellent access to ordinances and code organizations. Keyword searches were attempted to find relevant literature. While many terms returned no data, terms like landscape ordinances, tree ordinances, and zoning generally provided good references. The search engine used was another element to consider in searches, as search engines based on the East and West coasts of the United States turned up better results than those in the mid-continent.

The web site [www.greenlaws.lsu.edu](http://www.greenlaws.lsu.edu), which is managed by Abbey serves as the computerized extension of his book. The website contains updated information on some items, like the picture gallery and dates for paper presentations. The majority of the material found on the web site is supplemental to his book. The community green laws in America section on the green laws web site gives short summaries of methods communities around the country are using in implementing their respective green laws. This source is helpful because it gives some idea and sense of the types of issues to consider in writing the ordinance for this project.

The focus of [www.isa-arbor.com/tree-ord/](http://www.isa-arbor.com/tree-ord/) is tree ordinances. This web site is managed and funded by the USDA Forest Service through the National Urban and Community Forestry Advisory Council and the International Society of Arboriculture. The major focus of this site is on educating planners and cities considering tree ordinances. It educates by discussing the types of tree ordinances, their effectiveness and how to go about writing them. They have also assembled information that cities can use to evaluate the environmental effects that a tree preservation program is having in a city. This information comes in the form of scientific experiments and statistics. Even though this site focuses on tree ordinances, it contains a section that is similar to a section of Abbey's book that deals with drafting an ordinance. The method in which this site presents organization of an ordinance is more easily understood than the version in Abbey's book. The outline form introduces the three main components of an ordinance, but goes even further by discussing all of the subsections that would be found within. This model served as the basis in drafting this project's ordinance. Other sections of this website would be useful to city council or private citizens that are working to assemble a tree ordinance and to show the effectiveness of them throughout the country.

The Office of Wastewater Management housed in the EPA has put together an excellent database of best management practices (BMP) in developing a construction site. Located at [www.tetrattech-test.com/bmpmanual](http://www.tetrattech-test.com/bmpmanual), this site contains information useful to both the planner and the developer. The BMP manual covers a wide range of subjects dealing with erosion control, including land grading, permanent diversions, preserving natural vegetation, check dams, grass-lined channels, riprap, chemical stabilization, mulching, gradient terraces, soil retention, temporary slope drains, temporary stream crossings, vegetated buffers, construction sequencing, dust control, temporary diversion dykes, wind and sand fences, brush barrier, silt fences, sediment basins, rock dams, and sediment filters and traps. This website was helpful in writing the best management practices section of the model ordinance. The sediment control issues and the natural vegetation preservation sections proved very useful in establishing these standards in the model ordinance.



Three websites were used as portals to locate ordinances published online. Though the sites contain other information dealing mostly with planning, links to ordinances made these sites beneficial to the project. The first of these sites is managed by Buffalo University; [www.cyburbia.org](http://www.cyburbia.org) serves as a multipurpose tool for planners. With multiple links to aspects of planning, this website served as a hub for this project in finding links to ordinances around the nation. This website also provides many links to papers that deal with planning projects of ranging scales.

Another of these hub sites is [www.municode.com](http://www.municode.com). As its name suggests, it deals with municipal codes around the country and was the link to many cities complete ordinances. None of the text in this project is directly based on this website, however, studying ordinances from other cities/states helped to lay the foundation for basic needs of an overlay district ordinance.

The last of these hub sites that proved to be helpful was [www.ordlink.com](http://www.ordlink.com), which linked to many online ordinances. Although this site is not complete, new information is being added regularly. The ordlink website was organized, uncluttered, and easily navigated to find needed material.

## **Other Ordinances**

Many of the ordinances referenced for this project came from the Louisiana State University Green Law File. This is a hard copy database of many city's ordinances and zoning laws and serves as the base of information that is published by Dennis Abbey. Other ordinances were referenced and linked from the cyburbia, ordlink, and municode web sites. Some of the elements contained within the ordinances found on these websites were used in the writing of the model overlay ordinance for this project.

Though not an ordinance, the *Lafayette I-49 Connector Project* (The Blue Book) was organized to establish design guidelines in the development of Interstate 49 through a densely populated area in Lafayette. As an actual planning document, the Blue Book contains extensive and unrealistic ideas for developing along the I-49/US-90 corridor. It was created by the Community Design Group, which is group of architecture students and faculty from the University of Louisiana at Lafayette and members of the community. Despite its shortfalls, the connector project book does contain some valuable information, namely a section on community involved planning that provides functional tips and suggestions on conducting community input meetings. Comments on this type of planning are especially useful based on the positive response from the Lafayette community both during and after the project. This Blue Book project shows that community involvement in this type of project can assist greatly in the ease of passing ordinances. After this project was released, the community was generally excited to see the ideas that were presented and less reluctant to accept the Interstate 49 extension through Lafayette. Although this was not a useful source in terms of design referencing, it was a great example of the effectiveness of community-involved design within the overall process of designing and planning. Unfortunately, the methods and explanation of assembling large community groups is not completely covered within the document, the coverage in the local press of the book presented only positive attitudes towards the process and the end result.

Three amendments to the Jefferson Parish (Louisiana) comprehensive zoning ordinance were referenced for this project. The amendment sections consulted were Section XIII F-Mixed Use Corridor District, Section XIII G-Commercial Parkway Overlay Zone, and Article X The Old Metairie Conservation District.

The purpose of the Mixed Use Corridor District is to develop unified mixed-use developments along major transportation routes, by establishing design, landscape, and signage standards. This corridor was of interest in this project because its main goals are similar to the goals proposed for the ordinance of this project. Because of this similarity, the types of regulations and the methods in which they were proposed were applicable to the ordinance in this project. Elements considered in the Mixed Use Corridor District were applied both directly and indirectly to various sections of this project's ordinance, including landscape requirements, service bays/drives, and sign regulations. Like many of the consulted ordinances, these sections served as a baseline in developing standards for the project ordinance.

Though not an industrial area the Commercial Parkway Overlay Zone for Jefferson Parish again aimed at utilizing landscape buffer standards to help unify and enhance the quality of a commercial parkway. Like the mixed-use corridor this overlay zone attempts to accomplish similar goals as the ordinance written for this project. This ordinance was also applied both directly and indirectly in writing the Lafayette ordinance, namely the purpose, landscape and buffer requirements, service bays/drives, and sign regulations. These standards, although not unique, helped to furnish some considerations of the standards found in the project ordinance.

The third of the Jefferson Parish amendments used in the writing of the ordinance for this project was Article X of the zoning ordinance, which governs what has been reserved as the Old Metairie Conservation District. This ordinance deals heavily with the architectural standards for this community. However for this project, the key aspect considered was the administration of standards within the ordinance. This administration section is valuable because it generates a different governing body to work as a filter for projects in this zone prior to approval by the parish government. This was particularly valuable in setting up the administration standards in this project's ordinance.

Two codes from the City of New Orleans were considered in this project as well. They were the Bullard Avenue Urban Corridor District and the Highway Urban Corridor District. The primary goal of the Bullard Avenue Urban Corridor District is to provide design standards of an urban corridor along a major transportation route that work to "establish a positive design image" in the area. The planned outcome of these standards is a revitalization of a neglected urban corridor. Like the Jefferson Parish Ordinances, the Bullard Avenue ordinance was applicable to this project due to similarity in goals. The types of standards it sets were used as guidelines in setting standards for this project's ordinance. The standards studied included screening both vehicular use and refuse storage areas.

The Highway Urban Corridor District sets the goal of providing a "superior environment along I-10 and I-510." This goal mirrors the intent of this project and issues that are addressed in the Highway Urban Corridor District, such as landscaping and loading zones as they relate to a major highway, were valuable resources in drafting this project's ordinance. This was useful because this project site is comprised of a major highway (US-90) with commercial businesses to each side of it.

The City of Ashland, Oregon, released a manual on site design and use guidelines for the city in 1985. This manual is straightforward and quite informative. The guidelines it contains cover the complete gamut of site design issues that one may encounter. It is an excellent resource for the citizens of Ashland and practitioners of that city as well.

Ashland's design manual was useful in this project because it made the author aware of types of issues to explore while conducting the inventory and analysis and provided design guideline considerations. During an analysis, the Ashland guide suggests creating a constraints inventory, which explores issues that cannot be changed at a site. This is valuable here, as this project site is an already developed area with many preexisting conditions that cannot be changed. Since this project site is primarily an industrial area, many issues must be addressed so that current uses of the area are not interrupted. Design issues that the manual details for consideration include buffer zones, parking lot layouts, street trees, as well as private and shared outdoor space. Though some of these issues are more applicable to residential design, they were adapted to the project site and considered in the design guidelines.

The overlay district ordinances for Ridgeland, Mississippi and Alameda, California are designed to revive historic shopping districts in those areas. These ordinances were useful in their standards of parking layout and some of these standards were applied to the project ordinance. Both of the cities chose to develop parking that is screened by buildings. Even though the primary focus of these ordinances is architecture, pieces of their layouts were used as models for this project's ordinance.

Another ordinance consulted was that of Davidson County, Tennessee. The overlay sections of this ordinance were discussed in Chapter one. These ordinances worked as excellent tools in explaining the purpose and intent as well as applications of the overlay zoning process. The Davidson County overlay ordinances provided assistance as to where the project overlay ordinance should be situated within the Lafayette Comprehensive zoning ordinance.

The last ordinance consulted came from the city of Annapolis, Maryland. Section 26.67.010 of the Annapolis zoning code establishes an overlay zone that regulates the development along a sensitive shoreline. Like the Davidson County ordinance, a discussion of the intent of the ordinance can be found in Chapter one. None of the standards found within the Annapolis ordinance are referenced in this project's ordinance. The Annapolis overlay ordinance is mentioned merely as an example of another use for overlay zoning ordinances.

## Chapter 3: The Design Process

The process of conceptual design is widely documented and taught in design schools around the world. Many designers invoke a formula of problem recognition, research site inventory and analysis followed by a concept driven design. Though this process may appear somewhat linear and structured, a number of intermediate steps must occur to reach the end goal. In *Design Methods: Seeds of Human Futures*, J. Christopher Jones states that during the design process “the mind must be free to jump about in any sequence, at any time.” He also notes that thinking of the design process as a method of problem solving is flawed. Jones asserts that during the design process, one should always be aware of the problem and the proposed solution because this consciousness allows the problem and solution to intermingle and work together throughout the planning stage. Jones uses the terms “analysis, synthesis, and evaluation” in describing inventory, analysis, and design. His terminology makes the process more open to constant reevaluation, which is essential in ordinance writing, and thus it is best to consider Jones’s methods in drafting an overlay ordinance like the one written for this project. This process of continual review is particularly critical for this project due to the presence of multiple land uses and the overall size of the site. These elements require a more easily adapted process than normally approached during the design process of a single site, meaning that rigid standards of design should not be followed, rather, standards should be used as a guide or roadmap allowing for more flexibility in the writing of the ordinance.

The overlay zoning district ordinance requires analysis on multiple levels because of the different user levels that are found within and around it. For example, it is important to start at a large scale and work to the smaller scale, first considering the region, then the state, the city or parish, the complete site, and finally individual sites that comprise the complete site. A thorough understanding of the whole site and everything that happens within it is important because the success of an overlay district plan is dependent on an understanding of individual sites. Therefore, for this project, case study sites were chosen for closer review to achieve this understanding.

For this project five general steps were completed that culminated in the final ordinance. These steps (detailed below) include identification of need, observation of site, inventory and analysis of sites, development of theme, and drafting of the ordinance.

### Identification of need

The first step for a city is to identify the problem that needs to be solved and determine how will it be solved. The problem may be a need for a change or update to an area that may or may not be already zoned. For example, a city may decide it needs to revive an urban forest area similar to the earlier mentioned overlay district of Annapolis, Maryland, in which it was decided to conserve an area of shoreline through an overlay zoning district. It is also important at this stage to attempt to identify whom the overlay zoning district will impact, either directly or indirectly. One may find it necessary at this point to locate a person/consultant that is able to assist in solving problems if they arise. Some design firms work as consultants to cities on these types of projects.

The need for this project stems from a State of Louisiana Interstate 49 connector project that will create a non-stop route from New Orleans to Shreveport. The study area will be one area affected by the connector project, creating a need for a document to help unify the study area and at the same time encourage tourism in the Lafayette area.

### **Site observation**

Observation is an essential step for an ordinance writer to undertake. A designer should examine, explore, and become a user of the site in an unbiased manner. During observation, a designer should not look for specific items but absorb the site as a whole. In this project, it was effective not only to view and use the site by car as many do each day but also to walk the site and experience it at a slower pace. At this stage, one can begin to identify patterns and land use on individual sites. An example of this would include noting the presence of large vehicle entries and exits oriented towards the main arterial road during observation. These types of patterns can help a designer understand the users of the site and in turn provide better design recommendations.

### **Site inventory and analysis**

The inventory is comprised of factual observations taken both from the site and outside resources. It is important to collect existing zoning ordinances and maps. These documents will serve as a road map in understanding the site structure. It may be advantageous to investigate other cities that have implemented such ordinances and then to read those ordinances. An understanding of general ordinance layout and terminology is a critical tool in developing a new ordinance.

Some inventory items affect the entire project area while others affect the individual sites. Table 3.1 outlines various inventory items explored by the author in this project inventory. These items were chosen from the author's own experience of doing site analysis within a professional firm. Issues such as climatological data, census data, traffic numbers and patterns, aerial photos, and maps may be considered in the project area inventory. Individual sites should also be inventoried; these issues may include building types and sizes, vehicular use areas, refuse service areas, utility service areas, landscape, and relations of neighboring sites. Signage, types and distribution of vegetation, drainage, and road conditions are examples of inventory items that may apply to both the complete project area and individual sites. It is these inventories that will assist in writing site design recommendations for the ordinance.

Categorization of individual site uses is important in the inventory process. For this project, category types ranged from petroleum related businesses to restaurants and shipping companies. After cataloging site uses, it became easier to evaluate the design needs for the particular business types and to select case study sites.

The next step in the inventory process was to conduct an on site interview with the establishment owner/manager to gain a better understanding of their particular sites. For this particular project items discussed during the site interviews included overall site layout, placement of product, loading zones, and traffic flow. The designer must understand the site-specific terminology so those elements can be addressed with the

owner/manager during the interview. In *U.S. Landscape Ordinances An annotated Reference Handbook*, Abbey diagrams various use areas of building sites and their applied terminology that is used in ordinance writing. As a group, Abbey calls these use areas “site geography” elements. Because not every area will contain the exact site geography items, it may be necessary to identify new terms to help define usage areas. An example that arose in this project was naming the large storage yards (laydown yards) used by oil tool rental companies to store casing. These laydown yards are unique to the oil industry and not specifically identified by Abbey but were incorporated into the site

Table 3.1 - Examples of items that may be inventoried at the project sites.

<b>OVERALL SITE INVENTORY ITEMS</b>	<b>INDIVIDUAL SITE INVENTORY ITEMS</b>
<i>Natural Conditions (existing)</i>	<i>Natural conditions (existing)</i>
Drainage Network	Drainage Network
Vegetation (type & location)	Vegetation (type & location)
Solar Orientation	Solar Orientation
Climate & Rainfall	
Wildlife	
<i>Man Made Features</i>	<i>Man Made Features</i>
Site Layout & Circulation	Site Layout & Circulation
Accessibility	Architecture
Parking Locations	Accessibility
Loading/Unloading Areas	Building (Numbers, Location, and Size)
Public Use Areas	Parking (Numbers and Locations)
Traffic (Areas & Volumes)	Loading/Unloading Zones
Entrances and Exits	Traffic (Areas & Volumes)
Signage	Utilities (Types and Location)
Business Types	Entrances and Exits
Lighting	Relation to Overall Site
Lot Lines	Relation to Neighbors
Zoning	Lot Lines
Storage Areas (Size, Location, and Type)	Zoning
Utilities (Types and Location)	Storage Areas (Size, Location, and Type)
Crime	Lighting
History	Property Lines
User Group	Users
Census Data & Projections	Public Use Areas
Demographics	
Planned Developments	

geography elements for this project. Figure 3.1 shows an example of an enlarged view of a particular use area with dimensions. On the first visit, the designer should measure the site and its various components. Site layout maps, like those displayed in Chapter four

(Figures 4.5, 4.7, and 4.9), can be used in the analysis process for evaluation. After the completion of the site inventory, the designer must perform an analysis of the data gathered. It is important to note that the difference between inventory and analysis is that an inventory is quantitative while an analysis is qualitative. For example, a site inventory would note the presence of a fifteen-foot red brick sign with removable pink letters that are four inches tall. Analysis of the same site would remark that the site has a fifteen-foot dilapidated red brick sign with four-inch tall ugly pink letters.

### **Precedence review**

After completing the site inventory and analysis but prior to beginning to write a draft code, a designer should look to those whom have already assembled such a project. Chapter two discusses the importance of reviewing existing ordinances. This stage would also serve as an excellent time for a designer to visit cities that have implemented overlay ordinances and assess the success or failures of the ordinances. Incorporation of the lessons learned from previous overlay ordinances will create a stronger and more effective overlay ordinance.

### **Public involvement**

Armed with the data gathered in the site inventory and analysis, the designer might choose to convene a town meeting to discuss the big picture ideas from the community. These town design charettes are quickly becoming a valuable design tool for projects of many different scales as public charettes may not only generate fresh ideas but also may change the attitudes of those who provide project funding. If the public feels involved by contributing their own ideas, it may make them more willing to encourage the city council to accept the ordinance.

### **Development of theme**

The purpose of theme development is to give a project direction and guidelines. This theme will most likely become the goals section of the ordinance when it is drafted. The theme is the overlying mission that the project is to accomplish and will drive the decisions made for design throughout. As previously mentioned, this project area is unique in its varying land use types that range from sugar cane fields to oil industry equipment. This wide scope of establishment purposes and locations throughout the project area create difficulties in the development of a design theme. Because one of the major overlying goals of this project is to unify multiple land use types, the theme will work to set the boundaries in which this goal can be accomplished.

### **Drafting the ordinance**

After theme development, the ordinance author must verbalize how the overall design theme is to be implemented over the site. The goal is to provide guidelines; the actual design is left to those responsible for the site design. Careful examination of

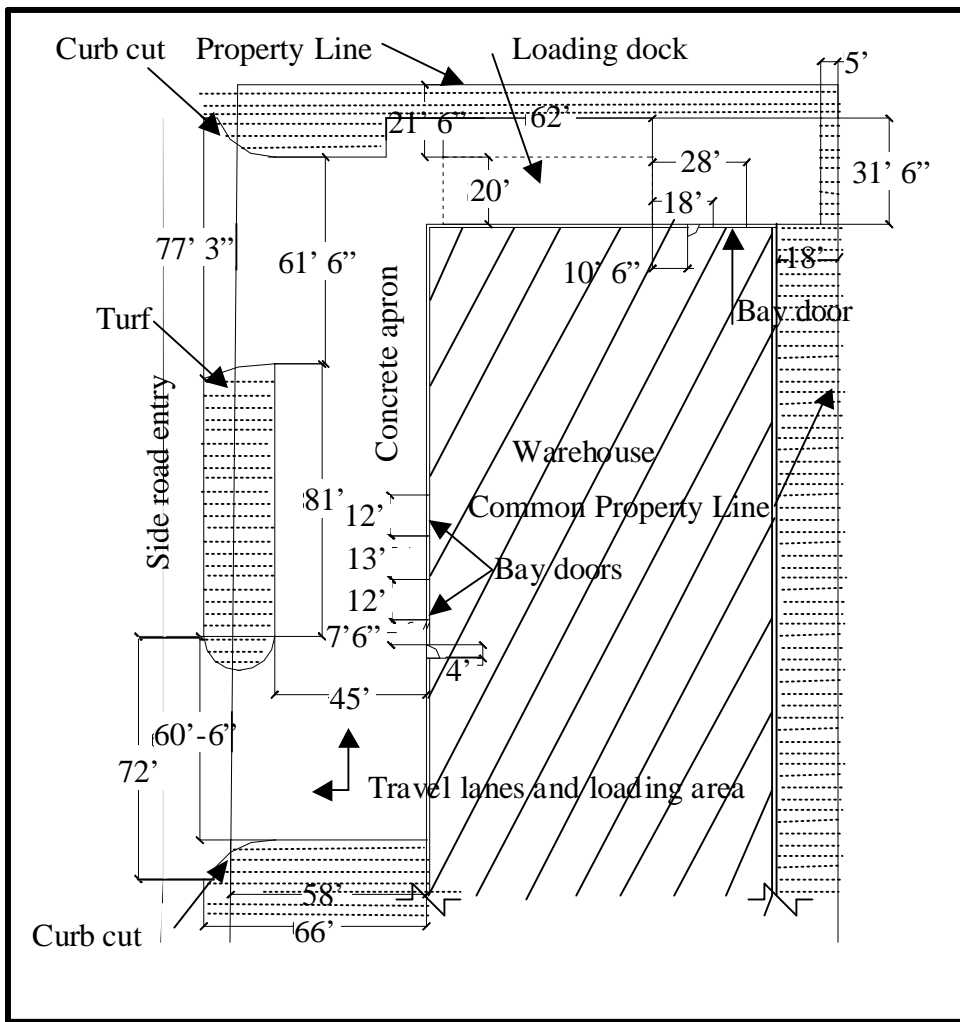


Figure 3.1 – Enlarged view of a vehicular use area from Precision IBC

analysis items will highlight similar elements that can best be used to establish the desired character. The ordinance should only provide a road map for the designers.

When it comes to writing an ordinance, the information gathered in the literature search will prove quite helpful. These analogs are particularly useful, because in their implementation, successes and failures can be observed. They can also assist the new ordinance writer in organizing his own ordinance. In some cases, an ordinance writer can adapt complete sections of another city's ordinance. However, when using portions of another city's ordinance as a foundation, it is important to account fully for differing environmental factors between the areas.

In his book Abbey outlines the three basic sections of which an ordinance is composed. Abbey calls the first section the contextual section. In its most basic form, the contextual section should cover who is affected, what the project is, when the ordinance is being passed, and the land where the ordinance is to be implemented. The second section identified by Abbey is the technical standards. The technical standards section should describe the standards and how they should be met. The third section is the administrative procedures section, which deals with decision-making and



implementation of development. These are the basic sections of an ordinance, however, looking at ordinances from other cities one can consider those ordinance formats as guides as well.

Ordinances should have graphics and use language that is easily understood by the general public. The prolific use of legal terms may discourage many from reading and fully understanding the document. The ordinance should serve as a straightforward reference for designers, business owners, and the general public.

## Chapter 4: Inventory and Analysis

This chapter contains information gathered in the inventory and analysis stage of this project. As previously mentioned, the purpose of the inventory and analysis is to provide a road map to better understand the site structure. Analysis issues in this chapter were gathered through observation of the corridor and individual sites within the corridor and observations were made both by foot and automobile. More detailed analysis was completed on three chosen case study sites through interviews and on site analysis. The results of this analysis were used in forming the standards written into the model overlay ordinance.

The corridor chosen for the model overlay ordinance is a six-mile stretch of four-lane highway (US-90) that passes through the towns of Lafayette and Broussard, both of which are within Lafayette Parish, Louisiana. The Southern Pacific Railroad runs parallel to US-90 on the southbound side of the road. A two-lane service road runs between US-90 and the railroad from Kaliste Saloom Road to the Broussard city line. (Figure 4.1)

Moving out to a larger scale for a better understanding of the context of this project, the setting for this project is the city and parish of Lafayette, Louisiana. In 1999, Louisiana Tech University estimated (from census data) the city of Lafayette was home to approximately 118,139 residents. According to the same data set, Lafayette Parish has some 187,000 residents, with the city of Lafayette being the parish seat. Lafayette is in close proximity to many several large cities; Houston, Texas, Shreveport, Louisiana, Baton Rouge, Louisiana, and New Orleans, Louisiana are all within 225 miles of Lafayette. Lafayette Parish is the smallest parish in Louisiana in terms of landmass and is split almost exactly in half by the north south flowing Vermillion River (Mamalakis, 1983).

Lafayette Parish is geographically situated between the Atchafalaya Swamp to the east, the Gulf of Mexico and its marshes to the south, and pine savannahs to the north. This unique landscape situation leaves Lafayette and its neighbors to the west as prairies. Such a diverse ecosystem within such a close proximity is rare, and it may have been easy to farm the prairie landscape that the Acadians found so inviting.

Lafayette's location proximity to major highways and navigable water makes the city an excellent location for business. The parish is home to many different business types and was named by Inc. magazine in the December 2000 as the thirteenth best small metro city to start and grow a small company. Lafayette is also home to many large companies that are involved in the oil field, manufacturing and service industries and banking.

Oilfield and other petroleum service-related business have seen an especially large growth boom. These businesses are found on the southern edge of Lafayette along the busy US-90 corridor. This strip of road draws some 45,000 vehicles a day through the city of Lafayette, according to figures gathered by the Louisiana Department of Transportation and Development in 2000. By simple observation one can deduct traffic is largely commercial, however the road serves as a major travel artery between New Orleans and Shreveport.

Moving back into the project site scale, the land adjacent to either side of the highway is zoned within the city of Lafayette but not in the town of Broussard. This mix of zoned and un-zoned areas results in a variety of land uses along the US-90 corridor.

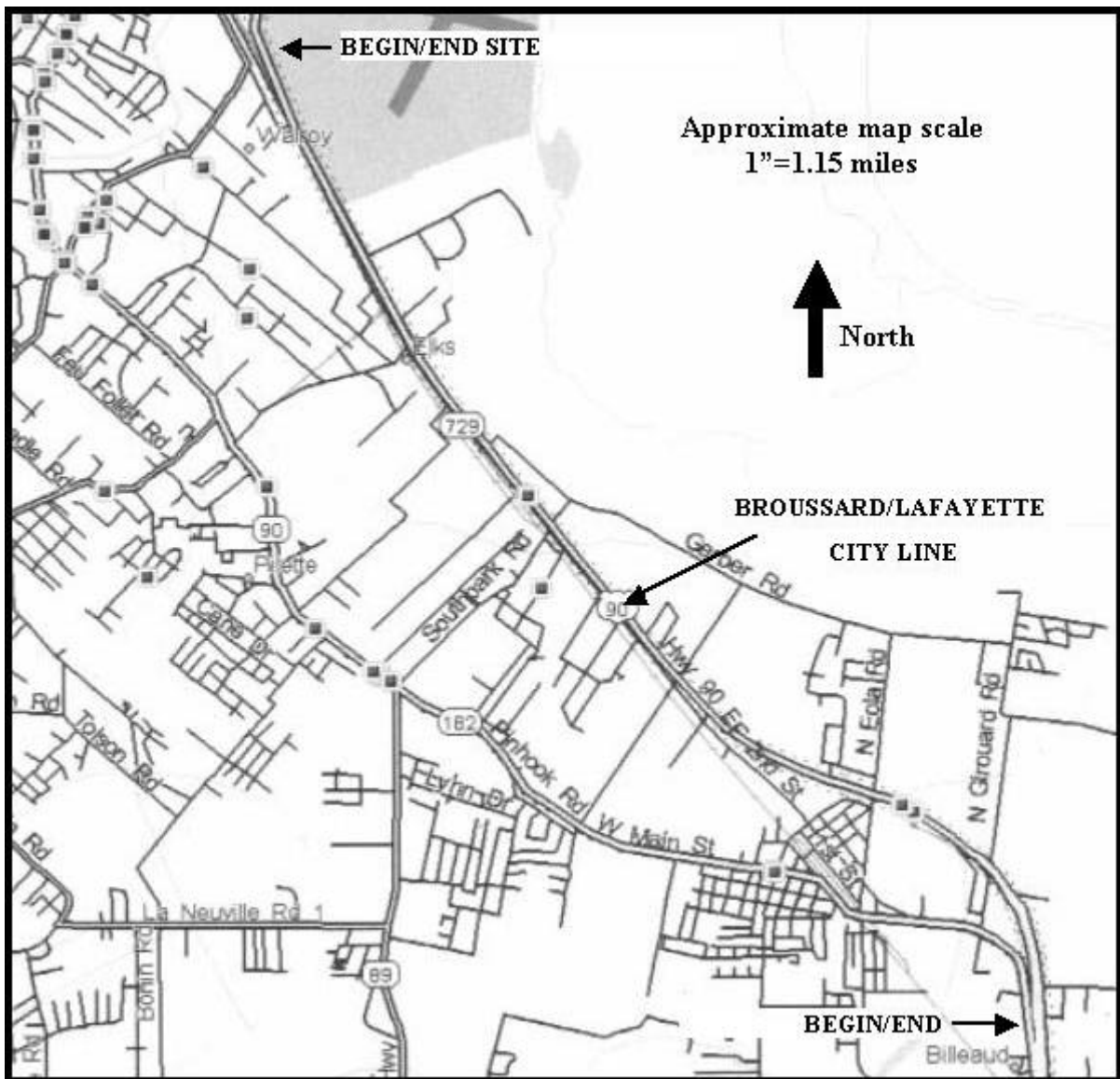


Figure 4.1 – Site map of US-90 corridor in Lafayette Parish, Louisiana

The section of the site that falls within the Lafayette city limits is zoned in the city's comprehensive zoning plan as I-1 Light Industry and I-2 Heavy Industry. I-1 Light Industry zoning incorporates all land use types, including residential. Minimum yard requirement for I-1 Light Industry zoning is only dictated in the case of the lot being used for a dwelling, in which case the front must twenty (20) feet wide, the back must be ten (10) feet wide, and the sides five (5) feet wide. I-2 Heavy Industry zoning is similar to I-1 Light Industry zoning except that residential dwellings are not permitted and no lot or yard requirements are established. Ordinance 0-128-2001 amended these two zoning types to require both I-1 and I-2 zoning to maintain ten (10) percent lot space as open space anywhere on the property. Analysis of the Lafayette zoning map within the corridor reveals the distribution of zoning types in the city limits to be approximately

forty six percent I-2 and fifty four percent being I-1. A detailed inventory found that of the seventy four (74) businesses that are located in the corridor, twenty six (26) of them deal directly with the offshore oil industry, such as oil rental tools, pipe/casing rental and sales, rig rental and refurbishment, and data processing equipment. Support companies not directly related to the petroleum industry (including chemical storage, trucking companies, helicopter rental, and equipment storage) account for approximately five (5) to ten (10) of the businesses found in the area. The remainder of the corridor occupants are businesses that serve the public, including restaurants, cement distributors, paint stores, tire shops, auto body shops, heavy equipment sales/rental/repairs, and convenience stores/gas stations. Other public service offices include a branch of the United States Post Office and the Louisiana Department of Transportation and Development. The majority of the aforementioned businesses are on individual lots with a small number located in strip malls. Agricultural influences are also present in the form of sugar cane fields.

With the exception of the agricultural sites, the majority of the businesses are outfitted to handle large hauling equipment that, in turn, dictates the individual site layouts found along the corridor. The sizeable nature of oil field equipment deems it necessary in the eyes of the majority of the property owners to utilize all open space on a site. Oversized entries and vehicular use areas are found on nearly each site. Inventory and analysis show that large storage yards, parking/loading areas, lay-down yards, and utility areas are all visible from the street in the vast majority of sites.

In exploring the architecture of this corridor, no particular designs or building types stand out in the project site. Therefore, the prevailing architectural style of the site is weighted towards functionality. Engineered industrial buildings housing large warehouses with massive bay doors that accommodate eighteen-wheeler traffic are found at many establishments in the project area. The cyclical nature of the oil industry has required adaptability of buildings, as structures have housed many different types of businesses. Consequently, the box style of architecture serves as a method for different businesses to occupy and adapt to the building and site for their specific purpose. Buildings are all situated with the main facade facing the main arterial street (US-90) with little or no consideration given to environmental concerns in the siting of the buildings.

Due to the sites close link to the offshore oil patch the general visual character of the area is unique, but unattractive. As earlier mentioned, the businesses that comprise the area are primarily concerned with developing sites that work efficiently. As one can see in Figure 4.2, the visual landscape is dominated by roadways, signage, and metal-sided buildings.

One historical account of the area is by an early explorer named Henry Brackenridge, who wrote a diary that later became a book in 1811 titled *Views Of Louisiana*, which describes his travels and observations in Louisiana. In these writings, he described seeing such plant species as Cedar, Cottonwood, Cypress, Magnolia, and Evergreen Oak. In his entries on the topography of the area, Brackenridge reported a massive flat plane that extends eighty miles east and west and fifty miles south of Opelousas. Other early explorers according to Mamalakis described seeing prairies “covered with a lush growth of grass year round, which rolling in the wind, was like a rolling sea of grass.” (Mamalakis, 1983) Brackenridge also observed the bayous found in the area and the



Figure 4.2 – Photo of US-90 with service road (By author)

dense canopy found around them. He described the land around the Teche and Vermilion rivers as large tracts of timbered land. A current general inventory of vegetation along the US-90 corridor finds many species of both deciduous and evergreen trees. Some significant Live Oaks (*Quercus virginiana*) with calipers over eighteen (18) inches can be found within the corridor. Many of the oaks found within the study site are Willow Oak (*Quercus phellos*) and the majority of these trees are at or near mature size however they do not contribute much visually to the site. Pecan (*Carya illionensis*), Pine (*Pinus spp.*), Chinese Tallow (*Sapium sebiferum*), and Hackberry (*Celtus laevigata*) trees are found throughout the site and are generally a result of new construction and hold no major landscape value to the area. Individual business sites maintain minimum landscapes if any at all. In general, a small annual or perennial bed is planted in the general area of the front door to add visual interest. Roadway right-of-ways, which are state-maintained, are vegetated with grass in deep drainage swales. Signage along the corridor encompasses a full range of complexity, from basic wooden signs to billboards to a full-scale case study helicopter mounted on a steel pole. The purposes of the signs along the highway include advertisement (business names/logos), gasoline prices, food specials, and directional signs. Businesses located miles away from US-90 take advantage of the billboards along the highway.

The results of the general inventory are that the overall site is an open book and many possibilities in landscape architecture, architecture, and planning could be explored in the attempt to unify the area. Again, the primary reason for the project is to develop a landscape overlay ordinance within this area based on the presence of these types of companies. Therefore it will be most important to understand the functions within the overall corridor and the individual sites.

### Case study sites

To help focus the direction and intent of the overlay ordinance, three case study sites were chosen for more detailed review. The sites were chosen on the basis of their major use, overall current landscape layout, author accessibility to the site, and general

author interest in the site. It is important to note that when constructing an implementable overlay ordinance, more inventory and analysis would have to be conducted on more sites for better understanding. Figure 4.3 shows the location of the three case study sites within the overall project site to assist in understanding the context of the site layout.

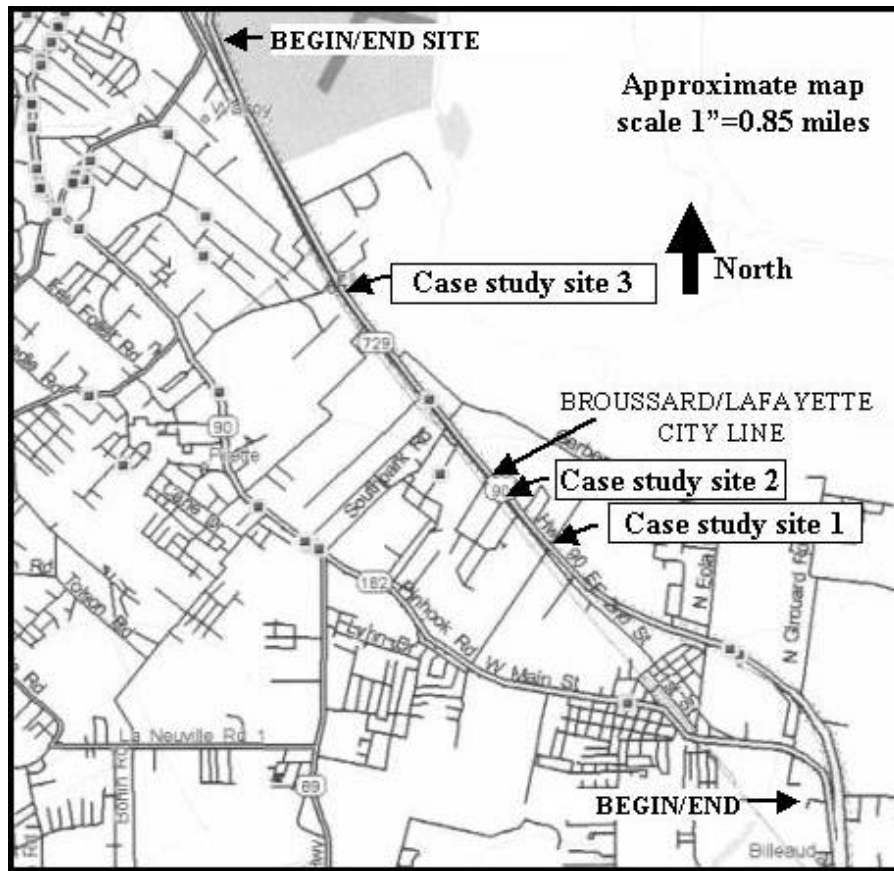


Figure 4.3 – Context map with study site locations

A comprehensive inventory and analysis using the elements discussed in Chapter three was completed of each of the case study sites. Managers or owners of establishments located on each site were interviewed in order to better understand the use and layout of their property. Traffic patterns and locations of major use areas were observed at each case study site. A visit was made to each site when interviews were conducted with either a manager or owner of the particular site. Questions were based on the original site impressions by the author. Examples of questions include: Why is the vehicular use area laid out differently from everyone else? What does your business do? What kind and how much traffic do you get on the site? Upon the conclusion of the interview, the author explored the site taking notes on locations of site use elements and other inventory and analysis items as noted in Chapter three. After the observations were complete the author measured the site for base mapping. These maps can be found throughout this chapter. Terminology for site elements discussed in the site inventory below are taken from *U.S. Landscape Ordinances an Annotated Reference Handbook* by



Buck Abbey and the Louisiana State University Green File Research Project. This inventory and analysis process is important because it gives the designer the tools needed to make the best recommendations for site design. The following sections outline the inventory and analysis of the selected case study sites.

#### Case study site 1

The first case study site selected for detailed study is located inside of the Broussard city limits. The landscape of this building is an excellent example of how a site could and should look after the application of the overlay ordinance. Precision IBC is a shipping depot for chemical storage containers and is closely linked to the oil industry. The containers stored at this facility transport and hold many different types of hazardous and non-hazardous liquids. Based in Georgia, Precision IBC merged with a local container company and built on this site. Figure 4.4 is a photo of the street-facing wall of this business, which is sited on approximately two acres. Figure 4.5 is a site layout drawing of Precision IBC. The 24,000 square foot facility is a steel warehouse with a brick façade. The steel warehouse area houses the containers while the bricked area is used for offices. The front of the building faces US-90 and sits some two hundred and twenty five feet from the centerline of US-90. A side street grants access to both the parking and loading areas.

This site has two separate vehicular use areas, the first being a non-landscaped lot used for automobile traffic and parking with ten automobile spaces and one handicapped space. The automobile traffic area is wide enough to handle two-way traffic. This lot and entry drive was situated to preserve many of the preexisting stand of trees. A second vehicular use area includes a side entry and pull through for loading and unloading hot shot trucks (pickup frames built for hauling long trailers) and a large loading ramp with loading dock for eighteen-wheelers.



Figure 4.4 – Case study site 1 (Precision IBC) photo (By Author)

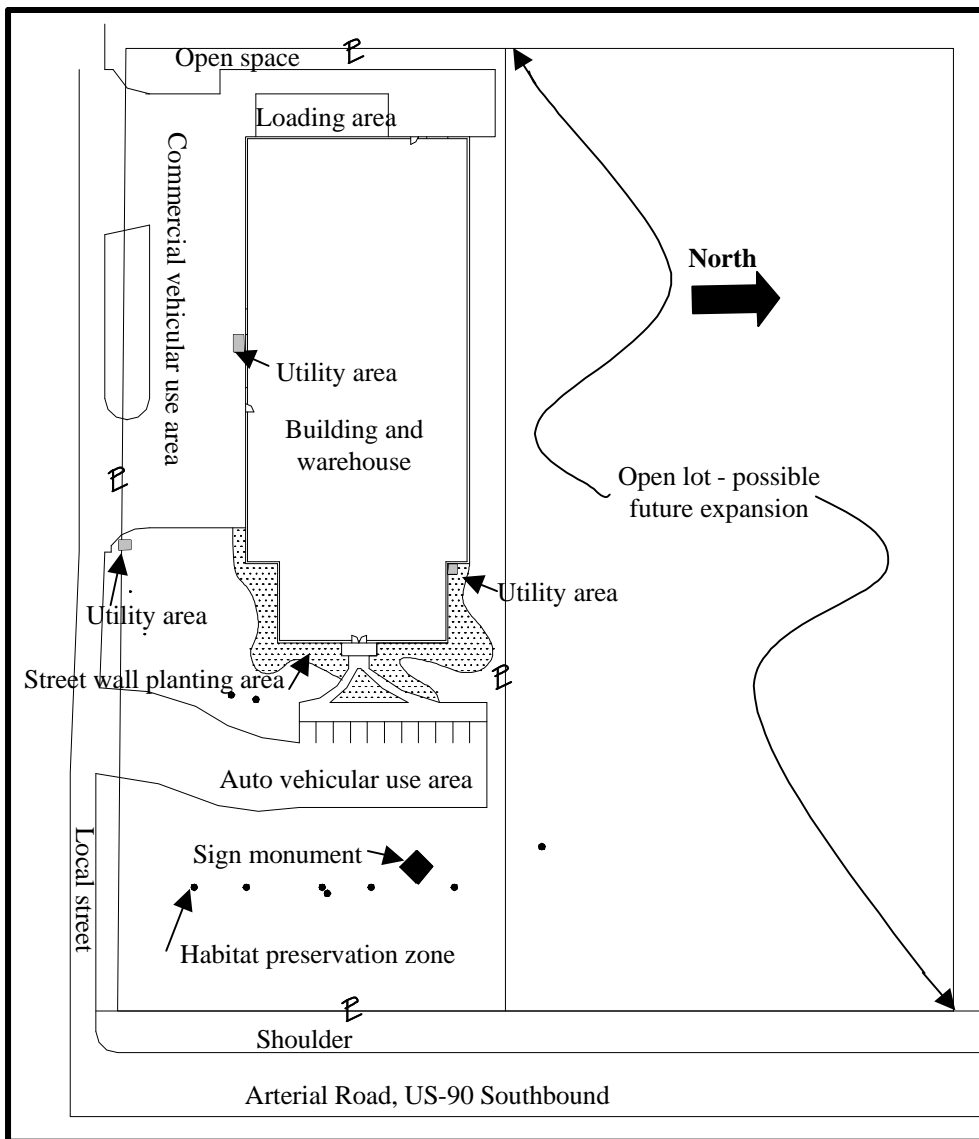


Figure 4.5 - Case study site 1 (Precision IBC) layout. Scale 1" is approximately 120'

The side pull through area contains a refuse service area as the dumpster is located here. A second refuse storage area for large garbage (mostly old containers and pallets) is located near the large loading ramp behind the building.

The site landscape makes use of a habitat preservation zone, a street wall planting area, and a sign monument planting area. Located near the front of the property the habitat preservation area consists of Water Oaks and Pecan trees that were on site before construction. The street tree planting area is unutilized due to a large drainage swale. This swale is approximately sixty feet wide and ten to twelve feet deep.

A sign monument planting area is located within the front tree line habitat preservation area. A four-foot brick pedestal serves as a base for the company's storage



containers and name in the sign monument. A small bed of Asian Jasmine is located around in the base of the sign monument and is situated in a steel edged bed.

Two utility service areas are present on this case study site. The first is a large electrical transformer that is located near the side entry pull through and is screened by two Southern Magnolias. The air conditioner compressors are located in the street wall planting bed and are screened by plant material.

In evaluating the characteristics of the Precision IBC site, it is not possible to find a better example of nearly ideal design and layout throughout the six-mile project area. This afforded an opportunity to apply some of the more interesting site elements to portions of the overlay ordinance. During his interview, the owner stated that Precision IBC developed this site in order to keep a majority of the original site intact and hoped that this particular development would be attractive and spark a “build it and they will come” attitude. This strategy has paid off as many that stop to inquire about the company based on site appearances often rent products from Precision IBC. This attitude in development is impressive considering that they were not governed by any type of ordinance as they were constructing their site, yet they still took the initiative to develop the site in this manner.

The building façade, in combination with the street wall planting area, masks the intended use of the building to some extent; nevertheless, warehouse doors reveal its function. The position of large bay doors on the side of the building softens the impact of the metal building that houses the containers. The proximity of loading zones to US-90 helps the building present itself favorably to highway traffic. The loading zones were sited where they are for convenience, not to screen them from the arterial street.

The street wall area landscape is better than most of the other establishments in the full project area. A conscious effort was made to save trees and to create an almost native feel to the site. The sign monument, although very subtle, is visually very pleasing and serves as an excellent advertisement for the company.

This site demonstrates that an industrial site can be developed while being conscientious of good design and site layout. This site also cultivated some idea of the types of spatial standards and user areas needed to layout this type of industrial site. Again, these ideals are important to recognize so that the best design recommendations can be made in the overlay ordinance.

### Case study site 2

Like the first study site, study site 2 has many elements worthy of exploration in the attempt to understand industrial site usage. As previously mentioned, terms that deal with site geography come from both *U.S. Landscape Ordinances an Annotated Reference Handbook* by Buck Abbey and the Louisiana State University Green File Research Project. The second site was chosen for its accessibility to the public and relation to commercial vehicles. This specific location, the Chabill’s Tire Store, is within the Broussard city limits and can be seen in Figure 4.6 and Figure 4.7.

Sited on approximately one and a half acres, this metal framed and sided building houses a showroom, ten automobile and small truck service bays, three large vehicle service bays, and a warehouse. The building is on the northbound side of US-90 but is not directly accessible from the highway. A service road or side street must be taken to

enter the site. According to the location manager, the business services some forty vehicles a day with eighty percent commercial and twenty percent private vehicles. Large vehicles serviced include pickup trucks, hotshot vehicles, farm equipment, small box trucks, stake body vehicles, and eighteen-wheelers.

The Chabill's site is primarily composed of a large, u-shaped vehicular use area that surrounds the building and includes parking, traffic flow, loading zones, and utility areas. The main parking area for the showroom is situated on the property line shared by Chabill's and an empty lot next door. As illustrated in Figure 4.6, the site is quite utilitarian with large expanses of concrete and high visibility signage and structure. A small landscaped peninsula located within the main parking area serves as a small buffer between the building and vehicular use area, however, no landscape islands, rear buffer zones, or side buffer zones are located within or around the parking lot. Parking capacity includes thirty-one spaces for car and small truck parking and two handicapped parking spaces with an entrance ramp. Five large vehicle parking spaces are located at the rear of the building.

Loading zones are situated toward the back of the building to best facilitate cargo loading directly into the warehouse. Service areas for refuse storage are located in the back of the building which includes a medium garbage dumpster situated in the vehicular



Figure 4.6 – Case study site 2 (Chabill's) photo. North and west elevation (By author)

use area. The dumpster belongs to the trash service and is a traditional large metal box with an open top. Used tires are stacked along the rear of the building in the vehicular use area and are hidden from view only by the building. Site triangles are kept clear due to the heavy application of commercial traffic and the large areas they require to make turns. This large utilization by commercial traffic makes the vehicular use area much wider than standard two-way traffic situations. At thirty-eight feet wide, travel lanes are an average of seven to nine feet wider than a normal traffic lane.

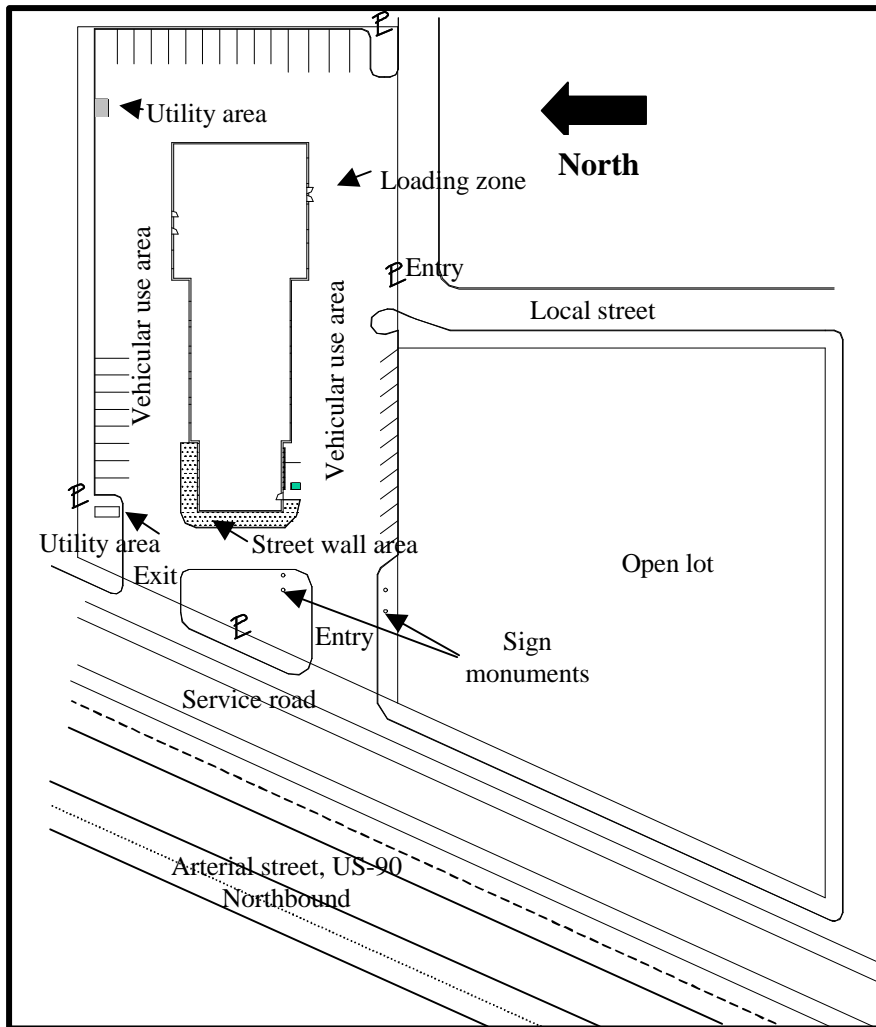


Figure 4.7 Case study site 2 (Chabill's) layout. Scale 1" is approximately 80'

The landscape of the site consists of three planting beds located in front of the building, which are best termed street wall planting areas. These planting areas, which total approximately 1,100 square feet, contain plants common to Lafayette landscapes such as Agapanthus, Indian Hawthorn, Shore Juniper, Liriope, and Split Leaf Philodendron. These plants serve almost no purpose beyond slightly softening the front exterior of the building. However, due to the overall large scale of the building and vehicular use area this planting bed is lost visually. As previously mentioned, the Chabill's site is within Broussard city limits and is not governed by any zoning standards. Because of the lack of tree standards, no trees are located on the site.

The area typically used for street tree planting area is not used at the Chabill's site due to a large drainage swale. This swale was built with the highway to help mitigate rainwater effects from the highway and the adjacent sites. The water is taken from the sites in drains to the south along the corridor. The swale centerline is located on the property line and is approximately three to four feet deep and eight to ten feet wide. The

swale is maintained by the state and the only vegetation within them is located on the higher areas of the banks.

Signage and advertising are present on site in the form of lighted signs. Two tall signs that advertise tire brands flank the entry to the site. A bulletin-board type sign with removable letters is used to advertise specials and sales. The building façade also contains lighted product advertisements and a sign with the business name and logo.

Two utility service areas are positioned on the Chabill's site. The first is a telephone transformer that is located at the front of the property in full view and the second are the air conditioner compressors that are partially screened from sight by the building.

From the analysis of this site, visual and functional components and their relationship with the overall design concept emerge as the two major components. The visual appearance of this site does not garner an exceptional first impression. The prefabricated steel architecture of this building and white paint are not very attractive from any angle. The glass front of the building that houses the showroom breaks the monotony of the building, however it does not adequately soften the look of the building. Another negative visual aspect of this building is the amount of concrete that surrounds it. Though the necessity of parking and traffic flow is important to the functionality of the site, poor planning has given this site a very bare and sprawling appearance. Oversized signs mounted on tall poles are out of scale with the rest of the site and visually unpleasant. The refuse service areas on this site are screened somewhat by the building, but their location in proximity to the vehicular use area enables them to be easily viewed. The location and manner of storage of the discarded tires from customer's vehicles is problematic because they are not corralled in any way and are loosely stacked in a large pile against the back of the building.

The functionality of this site was clearly the main concern during the layout and construction of the Chabill's site. Though visually the site is not ideal, the manager of the business has stated that their focus is to attract the commercial customer making it necessary for commercial customers to have easy access to the site. This commercial customer focus clarifies the importance of such open uninterrupted spaces. Though it seems that the development of this site is wholly unappealing, many issues that are discussed in this analysis can be rectified through a landscape overlay ordinance.

From the study of this site, another set of standards for site design was identified. Although not ideal, the company has made an effort to accommodate two different types of vehicle traffic (automotive and commercial) in the same areas. These sizes and layouts of these areas can be adopted for a foundational standard in the model overlay ordinance and adapted to fit the design guidelines.

### Case study site 3

Unlike the previous study sites, site 3 is located inside of the city of Lafayette (see Figure 4.3). However it was built long before any type of zoning ordinance had been assembled for the city of Lafayette. Of the three sites chosen, this site is most closely related to the oil industry. It is a specialty oil tool rental company called Tong Specialty.

Built in the latter portion of the 1960s, Tong was one of the earliest tenants along US-90. The site is situated on approximately 16 acres of land of which three acres are

preserved native grassland habitat. Tong's business focus is the rental of specialty casing tools like swivels and casing recovery tools. The architecture of the main office building was modern at the time of construction. The building's octagonal shape and high roof are unique along the corridor. The main warehouse and secondary storage structures are metal framed and sided. Figure 4.8 is a photo of the front on the Tong property.

Open areas of the site are designed primarily for vehicular use and therefore, large unobstructed concrete travel lanes and parking areas make up the majority of the site (Figure 4.9). Parking, which surrounds the main office building, includes spaces for sixty-two automobiles. There are five turf peninsulas located within the parking area closest to the main office building but there are no landscape islands.



Figure 4.8 – Site case study site 3 (Tong Specialty). West elevation (By author)

The remainder of the vehicular use areas is dedicated to travel lanes, which accommodate automobile and eighteen-wheeler traffic. A crescent shaped turn around area is located behind the main warehouse.

There are three areas being used as loading/unloading zones. The first area is located within the main warehouse and is screened from view. The second area is located just outside of the warehouse and is screened by that structure. The third area is situated between the main warehouse and the open storage warehouse and is partially screened from the US-90 corridor. Another service area located on the Tong site is the lay-down yard and is screened from view by the major warehouse. The refuse service use area (a single commercial dumpster) is located in the lay-down yard and therefore also screened from view.

The street walls and foundation have been planted with materials atypical to the Lafayette area such as Butia Palms, succulents, and mixtures of grasses. The only trees found on the Tong site are mature Pecan trees located at the rear of the lay-down yard that are original to the site. Buffer areas are nonexistent on all property lines, as the site is fully developed to its property lines and the rear of the property abuts a tree line.

Like many of the other sites along the corridor, the street tree planting area is not used due to the presence of a drainage swale.

Located on one of the parking area peninsulas, a simple lighted sign on a tall post serves as the sole identifier of the business from the highway. At the base of the sign, there is a small brick planter box that is sparsely planted with annual color.

Two utility service areas that are located on the Tong site are the air conditioner compressors and used motor oil storage containers. The air conditioner compressors are situated at the rear entry to the main office building and are fully screened from view by that building. Used motor oil storage is found between the main warehouse and the open storage warehouse and are somewhat screened from view by the main office building.

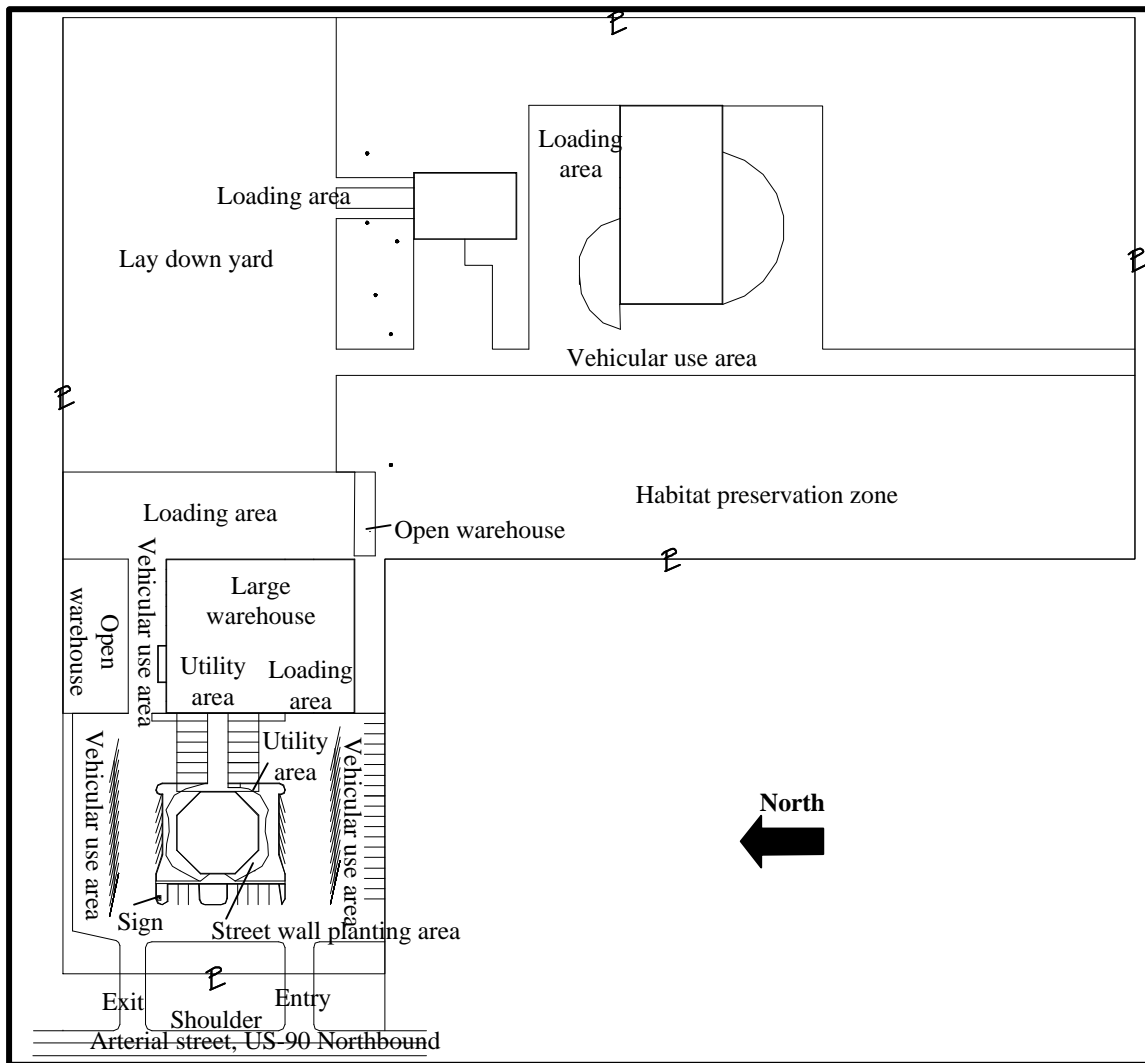


Figure 4.9 - Case study site 3 (Tong Specialty) layout. Scale 1" is approximately 160'

The study of Tong introduced the needs of an oil tool company in laying out and using a site. Even though not every site should be developed in the same way, Tong works as an excellent model from which to begin understanding site usages found in this type of industrial setting. Like many other establishments along the US-90 corridor,

Tong is very utilitarian. Although the site is not the most visually pleasing, its functionality of the site is good. Traffic flow on this site works quite efficiently due to the large expanses of concrete and limited landscape. Vehicular use areas could be broken up somewhat by landscaped islands that would not only direct traffic but also beautify the site. However, according to the owner, the amount of paved open space is a necessity because of the large daily flow of tractor-trailers.

The narrow nature of the Tong property made it necessary to creatively layout service, utility, and loading areas. This creativity also served to hide these same areas from public view.

The landscape of the site is purely minimal. The owner of the business admitted that the landscape design was the result of trade for services and therefore the designer was given full reign. This resulted in an unfortunate choice of landscape materials. Tong could have utilized more space as landscape and still have open land for later development.

### **Common site elements**

Throughout the inventory and analysis process, many of the sites contained many of the same site design elements, therefore many had the same types of problems to solve. Table 4.1 summarizes these elements, their uses, and the problems they present. These commonalities will assist the author in writing the standards for the code. These like elements were treated slightly differently in each site based on exact use. For example, the dimensions of loading zones at Tong Specialties are different from that of Chabill's based on specific needs. The identification of these similar use areas will be useful in drafting design standards in the corridor.

Table 4.1 – Common site elements.

<b>LAND USE ELEMENT</b>	<b>PURPOSE AND USE</b>	<b>PROBLEM TO SOLVE</b>
Walkway	Direct pedestrian traffic.	Dangerous. Separate pedestrians from vehicular traffic.
Open space	Ensure areas of no development	Increase amount to lessen development on site.
Access/Egress	Identity, safety, circulation	Locate and size properly for autos and trucks.
Vehicular use area	Direct vehicular.	Unsightly. Screen from view.
Loading zone	Loading and unloading goods.	Unsightly. Screen from view.
Utility area	Location of HVAC and utility boxes.	Disorganized and unsightly. Screen from view.
Laydown yard	Storage of vehicles and products.	Disorganized and unsightly. Screen from view.
Lot open space	Prevent full development of lot.	Underutilized. Use as landscape area.
Street wall planting	Beautify building entrance.	Undermaintained. Better utilize.

It was also discovered that establishments along the US-90 corridor are primarily concerned with functionality, not aesthetics. It is quite possible that had these sites been developed under the guidelines of an ordinance, one would find that the functionality of the sites could be maintained while keeping some semblance of aesthetic quality. Incorporating these common design elements and applying reasonable standards is key to achieving the goal of the overlay ordinance. Once these elements have been written into a code, they can serve as a baseline for designers in organizing new sites within the corridor. These sites will function properly and be more aesthetically acceptable



## **Chapter 5: Model Landscape Overlay District Ordinance**

This chapter is focused on the actual model landscape overlay ordinance written for the oil patch promenade. As earlier stated, the basic definition of an overlay district is an area within a larger zoned area where specific aspects outside of the existing zoning ordinance are to be addressed. Overlay districts can regulate many different issues from shoreline protection to development inside of an airport flight path. The following model overlay ordinance deals with the aspects of landscape within an industrial district. The standards for this ordinance are in the form of a table rather than traditional paragraph form to reference the intent and source of each standard. The tabular format makes it easy to reference the intent of each standard. The left column contains the standard and in some cases diagrams of how that standard may appear when implemented. The right column contains a short discussion concerning issues such as the current ordinance, source, or why a standard was used. The ordinance is presented in this manner to assist the reader in the thought process and reasoning behind the standard being presented.

### **I. Context**

The city and parish of Lafayette, Louisiana is in the process of making major transportation changes in an area that has been named the I-49 corridor. Serving as a bypass of I-10 towards New Orleans, this extension will bring more traffic through Lafayette. Lafayette now finds itself with an opportunity to create a gateway area that showcases one of Lafayette's largest industries, oil and gas and at the same time beautify and welcome newcomers to the city and parish. In addition, this project may introduce visitors to the special culture, history, and personality that is unique to Lafayette.

Therefore in harmony with existing ordinances in the city and parish of Lafayette this overlay ordinance will help to promote an attractive and harmonious industrial corridor. In the spirit of other ordinances, this ordinance will help to conserve property values and character by regulating uncontrolled growth. It is within these guidelines that this ordinance will help to protect the health, safety, and welfare of the residents of Lafayette parish.

#### **A. Goals**

1. Welcome visitors to the city and parish of Lafayette through the creation of a green "gateway" area to the city that is harmonious not only with it but the unique cultural area of which it is a part.
2. Create a sense of unity in an otherwise disorganized area through the creation of a unified set of site development standards. This plan will be developed to achieve the visual appearance of an overlying concept.
3. Establish an area with a distinctive character by creating a distinct character that works to highlight and unify the overall corridor character. This theme will be carried through in the site specific landscape and architectural elements.
4. Strengthen cultural pride through the development of an area, which has a look and feel that is in unison with the culture of the area, and showcase a

portion of one of Lafayette's largest industries, oil and gas. This will assist in boosting cultural pride in the area.

5. Improve the environmental quality of the area by addressing the benefits of landscape in an area to the environment. Encouraging and promoting the reforestation and replenishment of landscape material will aid in the improvement of not only the visual environment but also the overall environment of the city and parish of Lafayette.
6. Provide a process for review for the appropriate development of the district to aid in continued development that is within the intent of this ordinance.

#### B. Applicability

1. Land inside the corporate limits of the city of Lafayette
  - a. Land within the district that is zoned I-1 and I-2 under the City of Lafayette zoning code. All lots that coincide with the right of way of US-90 and its service roads are affected beginning at Kaliste Saloom Road southbound to the Broussard city line (Figure 5.1).
  - b. All property undeveloped within this area.
  - c. All properties directly adjacent to the rear property line of developed land within the district must offset all development one hundred (100) feet from the property line to allow buffer space.
2. Land outside of the corporate city limits
  - a. All land adjacent to US-90 from the city of Lafayette to Albertson's Road in Broussard. This includes any and all land use types found within this area.
  - b. All property developed or undeveloped is affected by this ordinance unless it already meets the design guidelines of this ordinance.
  - c. Updates of the zoning code in the city of Broussard will not affect this ordinance.
3. Existing ordinances
  - a. All underlying zoning ordinances as they are concerned with any aspect of this ordinance will be updated by this ordinance to allow for new landscaping and its components including but not limited to, signage, lighting, site construction best management techniques, architectural standards, and parking requirements. All other aspects of the comprehensive zoning ordinance should be followed.

#### C. Definitions

##### 1. Purpose

This section serves as a supplement to the Lafayette Zoning Ordinance and its amendments. Terms found in this ordinance that are not already defined in those documents will be defined in this section. Some definitions come from *U.S. Landscape Ordinances An Annotated Reference Handbook* as they pertain to this ordinance.

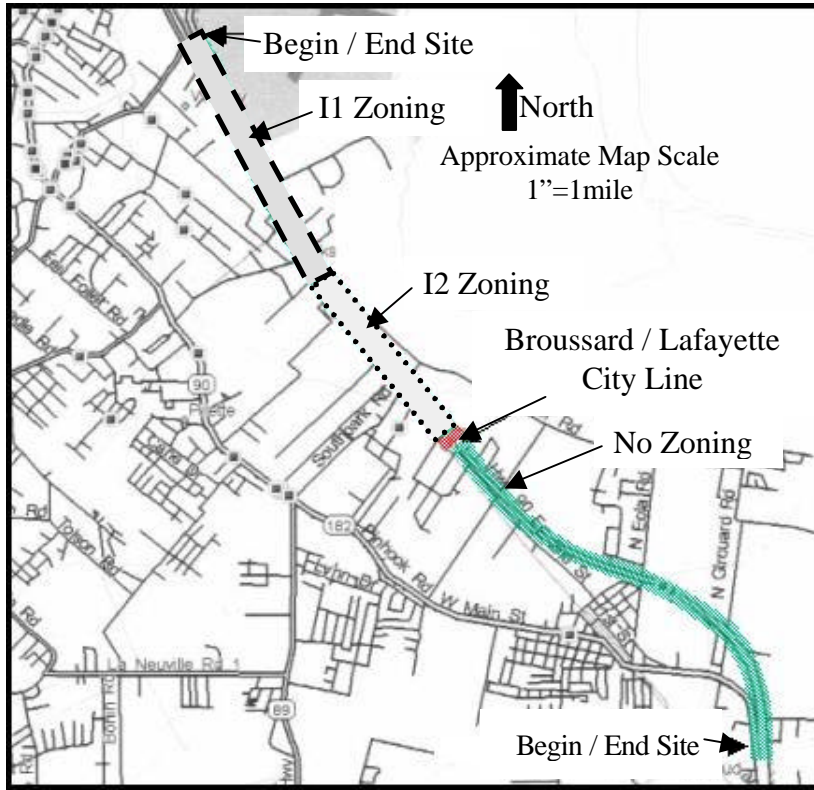


Figure 5.1 – Ordinance affected area

- a. ADA - Refers to the Americans with Disabilities Act of 1996 and all of the regulations contained within.
- b. Adjacent Property - Any section of a property whose property line is shared with the property in question.
- c. Arterial Road - Roadway that carries main vehicular traffic through a site.
- d. Barrier Free - Access to any area of a site without barrier to any person or persons with a disability.
- e. Berm - A mound of soil, either natural or man-made, used to screen and visually separate, in part or entirely, one area, site or property from the view of another area.
- f. Best Management Practices – Methods used by developers to prevent both ecological and visual damage during the construction process.
- g. Biofiltration - The use of plant materials to filter impurities from site runoff.
- h. Buffer - Open or landscaped space between adjacent properties where no development has taken place. A buffer can be used to block views and sound.
- i. Commercial Vehicle - Any vehicle available for hire by the general public.
- j. Construction Entrance - Primary vehicular entrance used during site construction.

- k. Curb Cut - Any break in the curb for a vehicle entry or driveway apron.
- l. Dryvit - Refers to Dryvit exterior finish products produced by Dryvit Finishes, Inc..
- m. Earthwork - Any construction work that involves the moving or removal of soil.
- n. Filter Berm - Man-made soil and rock berm that is strategically placed to catch, filter and release site runoff.
- o. Gabian - Wall building technique used for erosion control which incorporates chain link retaining cages filled with Rip Rap.
- p. Grasscrete - Refers to Grasscrete paving products made by Bomanite, Inc., or like products by other manufacturers.
- q. Grove - A grouping of three or more mature trees containing an established understory of plant material.
- r. Grove Edge - The outer boundary formed by the canopy of the trees contained within the grove.
- s. Habitat Preservation Area - Area of approved plant materials left unchanged throughout the construction process and after completion.
- t. Hazardous Material - Any material listed by the EPA as hazardous.
- u. Hearing - Public meeting on a set date to deal with all business concerning said area.
- v. Height At Maturity - Estimated height of a specific plant material at seventy five (75) percent of its expected life span.
- w. Landscape Overlay District - District within an already zoned area with chosen boundaries whose landscape regulations go above and beyond those of the local zoning ordinance.
- x. Laydown Yard - Any area which equipment or goods are unloaded, loaded, or stored.
- y. Marshalling Area - Parking area located near a loading zone that serves as a transition area for trucks before unloading.
- z. Native Vegetation - A natural association of plants dominated by one or more prominent native species or by characteristic physical attributes.
- aa. Noncompliance - Any act that does not follow the written standards of this or any other applicable ordinances.
- bb. Oil Patch Promenade - Name given to the industrial district directly adjacent to US Highway 90 from Kaliste Saloom Road to Alberstons Road in Lafayette Parish Louisiana.
- cc. On Site - Anything found within the legal property lines of the project in question.
- dd. Opacity - An imaginary vertical plane extending from the established grade to a required height, of which a required percentage of the vertical plane will be visually screened from adjacent property use.
- ee. Open Zone Planting Area - The unoccupied portion of a lot or building site that is open to the sky and contains landscaping.
- ff. Overlay Committee - Appointed committee that oversees the development activities of the overlay area.
- gg. Parking Lot Standard - Lighting fixture used to light parking lots

- hh. Paving - Any surface permeable or impermeable constructed for use by vehicles or pedestrians.
- ii. Pedestrian - Anyone who travels within a site on foot.
- jj. Porous - Any material that allows moisture to penetrate through it.
- kk. PVC - Abbreviation for Poly Vinyl Chloride, a material used in making pipe.
- ll. Runoff - Water produced by precipitation that falls on a site and moves off of the site through open, combination, and closed drainage systems.
- mm. Runoff Velocity - The rate in inches per hour that runoff leaves a site.
- nn. Screening - Decorative, solid-faced fencing, walls, earthen berms or dense vegetation used individually or in combination for the purpose of concealing from view the area behind such fencing walls or vegetation.
- oo. Sediment Loss - Soils lost through erosion from a particular site measured in cubic yards.
- pp. Service Bay - Any area that opens into a building where goods and materials can be loaded in and out of the building.
- qq. Setback - Distance in feet that a structure or landscape is to be placed from a given point.
- rr. Site Clearing Plan - A plan or plans stamped by a landscape architect which includes a tree removal plan and proposed best management practices for the control of sediment runoff during construction, areas of the site that will be graded, how drainage patterns will be directed, and how runoff velocities will affect receiving waters. This plan will include information regarding when earthwork will start and stop, establish the degree and length of finished slopes, and dictates where and how excess material will be disposed or where fill material will be acquired. Berms, diversions, and other storm water practices that require excavation and filling should be incorporated into the grading plan.
- ss. Slab - A concrete pad constructed to be the floor of a structure.
- tt. Street Tree Planting - Area of a development site that lies between the street right-of-way and the street, dedicated to planting trees and shrubs.
- uu. Street Wall - Any building wall that fronts a street.
- vv. Street Wall Planting Area - Area directly in front of the street wall used as a planting bed.
- ww. Travel Lane - Any area used to carry vehicle traffic through a site.
- xx. Utility Area - An area that contains any surface-mounted HVAC equipment or free standing above-ground devices such as utility boxes, booster stations, switch boxes and transformers that are a part of an underground utility system.
- yy. Visitor Parking - Any area intended for parking of vehicles owned by visitors to the site.
- zz. Water Feature - A designed landscape element that makes use of water including fountains, ponds and waterfalls.

Figure 5.2 illustrates land use types and their possible locations on a site.

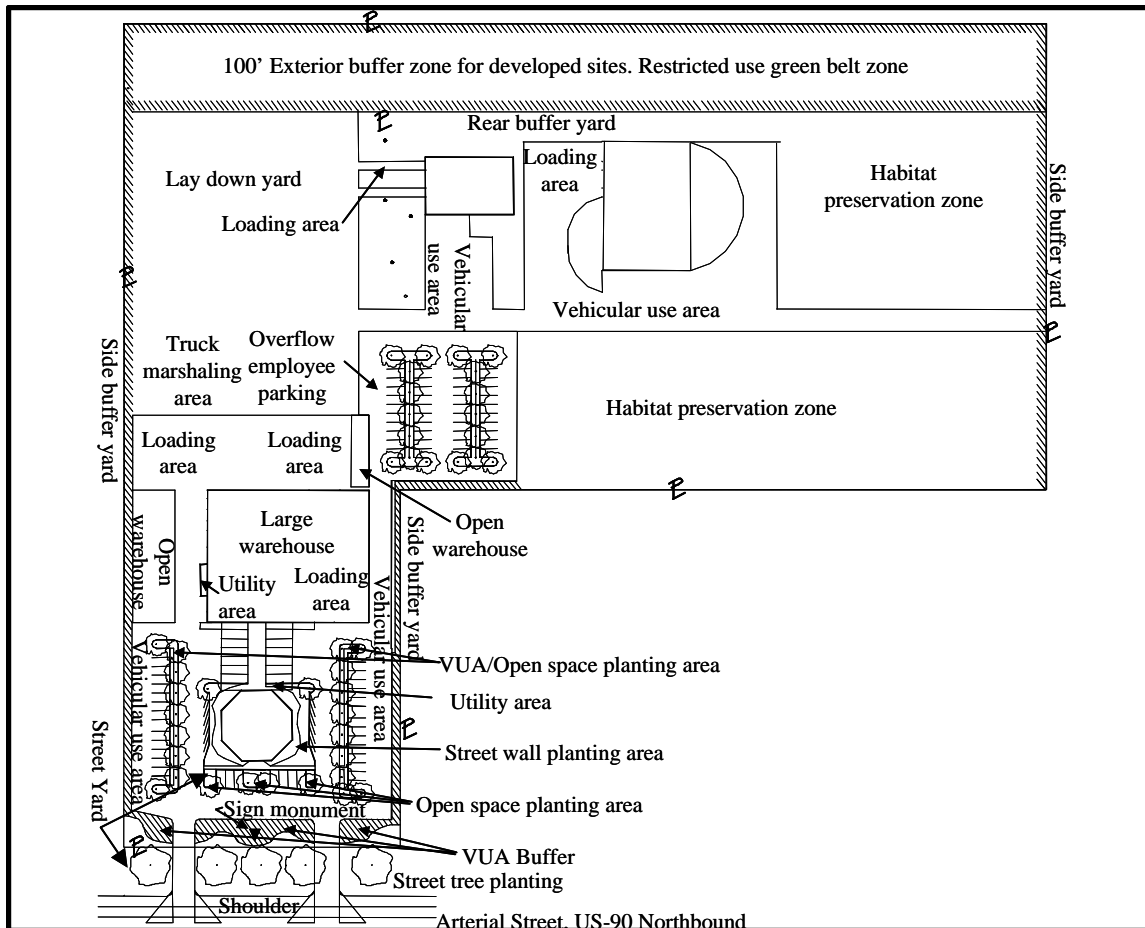


Figure 5.2 – Diagram of various land use types on an industrial site.

II. Technical Standards	
<p>A. <u>Design Standards</u></p> <ol style="list-style-type: none"> <li>1. The following will amend Article III, Section 2, “Special Districts” of the Lafayette Zoning Ordinance to add the “oil patch promenade landscape overlay district” and all of the requirements within.</li> </ol>	<p>The addition of this district and all of its standards to a single section keeps all district standards together for easy reference. This format can be found in the overlay zoning ordinances for Nashville, Tennessee Title 17 Zoning, Annapolis, Maryland Title 21 Planning and Zoning, and Jefferson Parish Louisiana Chapter 40 Zoning.</p>
<p>B. <u>Site Clearing and Preparation</u></p> <ol style="list-style-type: none"> <li>1. Site clearing plan <ol style="list-style-type: none"> <li>a. Prior to the issue of a building permit a site-clearing plan that has been stamped by a</li> </ol> </li> </ol>	<p>The current Lafayette comprehensive zoning ordinance has no provisions for site clearing and best management practices. Some of the standards for the site grading</p>

<p>landscape architect must be submitted for review.</p> <p>b. This plan must include a tree removal plan and proposed best management practices for the control of sediment runoff during construction, areas of the site that will be graded, how drainage patterns will be directed, and how runoff velocities will affect receiving waters. Also, this plan will include information regarding when earthwork will start and stop, establish the degree and length of finished slopes, and dictate where and how excess material will be disposed or where fill material will be acquired. Berms, diversions, and other storm water practices that require excavation and filling also should be incorporated into the grading plan.</p> <ol style="list-style-type: none"> <li>1. Allowable sediment loss during construction is five (5) percent per acre per year. Loss control techniques that can be employed include but are not limited to; filter berms, gabion walls, existing vegetation preservation or silt fences.</li> <li>2. All topsoil scraped from the surface of the site will be stored on site during construction and reused in the final grading.</li> </ol>	<p>plan come directly from the EPA office of wastewater management website BMP manual. Tree protection standards in Lafayette ordinance O-128-2001 only set rules for preservation of trees for credit. This standard would allow the committee to approve or disapprove the planned preservation before development begins. Requirement to document sediment control methods and loss control will hold developers accountable in cases of noncompliance. Sediment loss amount and rate is a foundation to work from, as it is not referenced from another standard but is an estimation as to the proper amount of sediment to be retained. This number should be revisited after a year to address any necessary adjustments. Methods of soil retaining come from the EPA Office of Wastewater Management website BMP section. Storage and reuse of topsoil is a management practice that is more ecologically friendly by saving trips to and from the site with heavy dirt haulers and would provide a parent soil for the plant materials that preexisted on site.</p>
<p>2. Native vegetation</p> <ol style="list-style-type: none"> <li>a. The standards that follow are concerned with site clearing. For native vegetation land use requirements consult Section II Subsection E part 7.</li> </ol>	<p>Meant to be a supplement to section IV in Lafayette's ordinance O-128-2001, this reaches beyond trees and focuses on native vegetation on site. According to the EPA</p>

<p>Approval to remove native vegetation must be given by the overlay committee, as described in Section III Administrative Procedures, prior to removal. Material to be saved or credited will be assessed under the following standards.</p> <p>b. Native material will be considered any plant or grove of plants (as listed below) found on site prior to construction. Other materials deemed historic or of great importance will be considered on an individual basis.</p> <p>1. Class A Trees</p> <ul style="list-style-type: none"> <li>a. <i>Carya illionensis</i> Pecan</li> <li>b. <i>Catalpa bignoides</i> Catalpa</li> <li>c. <i>Juniperus canertii</i> Eastern Red cedar</li> <li>d. <i>Liquidambar styracifula</i> American Sweet gum</li> <li>e. <i>Liriodendron tulpifera</i> Tulip Tree</li> <li>f. <i>Magnolia grandiflora</i> Southern Magnolia</li> <li>g. <i>Nyssa aquatica</i> Tupelo</li> <li>h. <i>Pinus Taeda</i> Loblolly Pine</li> <li>i. <i>Quercus phellos</i> Willow Oak</li> <li>j. <i>Quercus lyrata</i> Overcup Oak</li> <li>k. <i>Quercus michauxii</i> Cow Oak</li> <li>l. <i>Quercus nuttallii</i> Nuttall Oak</li> <li>m. <i>Quercus virginiana</i> Live Oak</li> <li>n. <i>Taxodium distichum</i> Common Baldcypress</li> </ul>	<p>the preservation of native vegetation has many advantages which include; erosion control due to established root systems, storm water detention due to the ability to process storm water runoff faster than new plant material, biofiltration again due to mature root systems, and aesthetic values to a site throughout and after construction activities. Identification of native flora sources helps to give developers a reference.</p> <p>The credit system is generous but does not offer the added benefit of retaining plant material on site. Existing material credits comes from the Jefferson Parish ordinance 17499 Section 6 Part K.</p>
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<p>2. Class B Trees</p> <ul style="list-style-type: none"> <li>a. <i>Cercis Canadensis</i> Eastern Redbud</li> <li>b. <i>Cornus drummondii</i> Rough Leaf Dogwood</li> <li>c. <i>Cornus florida</i> Flowering Dogwood</li> <li>d. <i>Myrica cerifera</i> Wax Myrtle</li> </ul> <p>3. Class C Trees</p> <ul style="list-style-type: none"> <li>a. <i>Aesculus pavia L.</i> Red Buckeye</li> <li>b. <i>Callicarpa Americana</i> French Mulberry</li> <li>c. <i>Erythrina herbacea L.</i> Mamou</li> <li>d. <i>Hibiscus lasiocarpus</i> Wolly Rose Mallow</li> <li>e. <i>Rubus louisianus</i> Blackberry</li> </ul> <p>4. Shrubs, Grasses, and Groundcovers</p> <ul style="list-style-type: none"> <li>a. <i>Sabal minor</i> Palmetto</li> <li>b. <i>Andropogon gerardii</i> Big Blue Stem</li> <li>c. <i>Gelsemium sempervirens</i> Yellow jessimine</li> <li>d. <i>Hymenocallis lirisome</i> Spider Lilly</li> <li>e. <i>Iris fulva</i> Copper Louisiana Iris</li> <li>f. <i>Iris giganteaerulea</i> Big Blue Louisiana Iris</li> <li>g. <i>Iris 'louisiana'</i> Hybrid Louisiana Iris</li> <li>h. <i>Nelumbo species</i> Water Lotus</li> <li>i. <i>Panicum virgatum</i> Switch Grass</li> <li>j. <i>Saccharum officinarum</i> Sugar Cane</li> </ul> <p>c. All native material will be identified by referencing "Acadiana Flora, Native and Naturalized Woody Plants of</p>	
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<p>South Central Louisiana” written by, William Dean Reese and Garrie P. Landry. Plants not found in this source will not be considered unless deemed historic or significant.</p> <p>d. Replacement of removed native plant materials must be done on a basis one-half (1/2) caliper inch per one (1) caliper inch removed for trees. Shrubs and vines will be replaced at a one (1) plant removed to one (1) three (3) gallon plant replaced. Live Oaks must be replaced at a ratio of one (1) caliper inch removed to one (1) caliper inch replaced. All caliper measurements will be taken as DBH or diameter at breast height. If the breast height of the surveyor is less than four (4) and a half (1/2) feet, the latter measurement shall be used. Native material kept on site over the requirement for the area will be credited to any other on site planting areas at twice the amount they are credited on.</p>	
<p>3. Tree protection</p> <p>a. Protection of all trees or groves not scheduled for removal must be maintained throughout construction.</p> <p>b. Open top wooden boxes should be constructed a minimum of one (1) foot off the end of the tree canopy or one (1) foot from the grove edge. This box should be four (4) feet in height and not allow vehicles or pedestrians to encroach on the critical root zone.</p> <p>c. Existing grade must be kept within the fenced perimeter.</p>	<p>Lafayette’s amendment ordinance O-128-2001 does cover the protection of trees during construction. Protection standards are outlined in Section VI Part B of the amendment. According to the amendment protection entails fencing off the critical root zone (area under the canopy). This standard requires materials, location off the drip line, and the height of the barrier to insure better protection.</p>

<ul style="list-style-type: none"> <li>d. Nothing can be fastened to these trees or plants in any way throughout construction.</li> <li>e. Specimen Live Oak trees are considered any Live Oak at or above eighteen (18) inches DBH. These trees may not be removed and must be protected following tree protection standards.</li> </ul>	<p>This standard is written to protect all specimen trees from removal. The 18" DBH standard comes from the standard that was struck from Lafayette ordinance O-128-2001.</p>
<p>C. <u>Design Components</u></p> <ul style="list-style-type: none"> <li>1. Structure orientation and size <ul style="list-style-type: none"> <li>a. The main structure on the site shall be oriented with the main facade facing the street with a minimum thirty (30) foot setback from the property line. The building or buildings may not take up more than fifty (50) percent of the total lot</li> <li>b. The main entrance of the building will be located at any point on the street-facing facade. Sites with at least two (2) street frontages must use the minimum setbacks required with the main facade oriented to the main arterial road.</li> </ul> </li> </ul>	<p>Article IV of the Lafayette ordinance deals with setbacks and the amount of land a building can cover. The minimum yard setback for industrial 1 is twenty (20) feet and industrial 2 is zero (0) feet. Thirty (30) feet allows enough open space for easy planning. Building lot occupation is an improvement on Lafayette's comprehensive zoning ordinance which gives eighty percent of the lot to building and parking. Building façade placement is from standards seen in 17-21-5 of Section 21 of the Alameda Overlay District. In Alameda, the intention was to define the street edge and provide a more pedestrian friendly environment. In the Lafayette district, it would work to define the street edge. From the Alameda ordinance, the intent of street facing entrances is to welcome site users. In the Lafayette site, street facing entrances are more visual than functional. The orientation of a door to the main road would give a more welcoming appearance. The standards that follow from the Alameda ordinance are useable because they do not deal with environmentally unique situations.</p>
<ul style="list-style-type: none"> <li>2. Architectural Standards <ul style="list-style-type: none"> <li>a. Buildings must be a maximum of twenty five (25) feet in height and a minimum of twelve (12) feet in height. These measurements will be taken from the top of the slab to</li> </ul> </li> </ul>	<p>Building heights were established through discussions with the business owners as to the types of activities that take place within the buildings on site. The maximum height would allow semi traffic to pass through and warehousing to be done. The minimum height standard is to</p>

<p>the top of roofline.</p> <ul style="list-style-type: none"> <li>b. Wall finishes must be finished in any of the following materials. Stucco, Dryvit or Brick (color to be approved by overlay committee) must be applied on the street facing wall or walls. The remainder of the walls can be any of the previous materials or metal.</li> <li>c. Roof materials must be tile or dark shingle with all runoff to be directed to gutters and into underground drains.</li> <li>d. Lighting is limited to building mounted lighting and parking lot standards both of which are to be approved by the overlay committee to assure uniform appearance.</li> <li>e. All utilities are to be run underground encased in thick wall PVC sleeves.</li> </ul>	<p>prevent shacks and mobile homes from being used in the corridor. Building materials are not listed within Lafayette's comprehensive zoning ordinance. The prescription of allowable building materials will maintain a uniform look. Piping all rooftop runoff will mitigate the effect of faster runoff and lower the possibility for erosion. Underground utilities will prevent visual pollution and keep the lines out of trees saving them from pruning.</p>
<ul style="list-style-type: none"> <li>3. Pedestrian circulation <ul style="list-style-type: none"> <li>a. All sites shall provide safe pedestrian walkways and ramps that are separate from parking lots and vehicle travel lanes. All walks must be barrier free and a minimum of three (3) feet six (6) inches wide. No walks or ramps can contain a slope greater than (1) foot rise to twelve (12) feet of run.</li> </ul> </li> </ul>	<p>This is mandatory in development previously and serves to remind those developing or building in the area. Required for ADA compliance.</p>
<ul style="list-style-type: none"> <li>4. Parking lot location and size <ul style="list-style-type: none"> <li>a. In an effort to minimize the visual impact of parking areas, parking shall be located to the side or in the rear of the building.</li> </ul> </li> </ul>	<p>The Lafayette ordinance 0-128-2001 adjusted Section 4 Article V parking requirements however; no standard was drafted for screening parking areas. The standard and diagram in Figure 5.3 are from Article 21:Section 17-21-5 Site Layout: Part 4 Parking lot orientation of the Alameda Overlay District ordinance. Note the use of structural rather than landscape screening.</p>

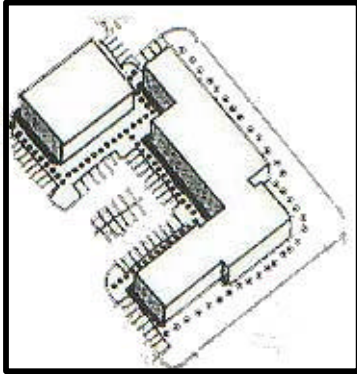


Figure 5.3- Building used to screen parking areas (Alameda, CO.)


- b. Volumes, space sizes and curbing will follow regulations already set by the city of Lafayette in Article IV Section 5 of the Zoning ordinance with the off street parking requirements found in ordinance O-128-2001 and Article V of the zoning ordinance.

**D. Vehicular Use Areas and Interiors**

1. Parking area layout, material and landscape
  - a. Instead of a single large lot parking areas can also be made up of multiple smaller parking areas linked by landscaped islands, peninsulas or habitat preservation areas.
  - b. Paving materials may include but are not limited to, cement, asphalt, crushed limestone, crushed granite, concrete pavers on sand, compacted sand, soil cement and grasscrete type products.
    1. In the case that porous pavement is used building guttering and drainage may be alleviated. Also ten (10)

Not addressed in existing Lafayette ordinances. This standard is a part of the Alameda overlay ordinance 21:17-21-5: 4. This is a creative option to designing parking lots and mitigating their impact with landscape. Also no standard has been adopted in Lafayette dealing with parking lot materials. With the availability of many new porous materials that can withstand the abuse of heavy traffic it makes it easier to have more environmentally kind parking lots. These lots can help to slow water runoff and be friendlier to surrounding plant material. Giving the developer incentives to use such products will encourage their use.

percent of the total parking area may be used for storm water detention.	
<p>2. Visitor parking areas</p> <p>a. Parking areas for visitors may be located on the front of the building as long as proper screening (as found below) is employed. The number of visitor parking spaces may not exceed ten (10) percent of the total parking allotted by the Lafayette zoning ordinance.</p>	The necessity of visitor parking became apparent after interviews with property owners and managers. Separation between visitor and employee parking would make it easier for visitors to navigate a site
<p>3. Street wall screening and planting</p> <p>a. The street wall is the facade facing US-90 and its side streets.</p> <p>b. The street wall must be landscaped with approved plant materials for this area over a minimum of eighty (80) percent of its total length and a minimum six (6) feet deep with trees planted a minimum of twenty (20) feet on center. Water features are also welcome but must be designed by a landscape architect.</p> <p>c. The street wall planting area can serve as a buffer between the front facade and vehicular use areas but must be a minimum of ten (10) feet in depth and cover one hundred (100) percent of the facade of the building when used in this case.</p>	The opportunity to utilize the street wall planting area is underused. In industrial sites, this will help to establish a unified look typically not found in the architecture. The mixing of a front yard and the vehicular use area makes it necessary to organize the appearance and include light screening of vehicular use areas. Due to this, the width of the required buffer is, then, (10) feet. No parking lot screening is included because the buildings are to hide these lots
<p>4. Street yard area</p> <p>a. The street yard area will be considered an open space flex area. Due to its geographic locale between the right of way and the front of the building other landscape requirements will fall within this area.</p>	The street yard area falls within an area of development that overlaps with other land uses. These other land uses are already regulated. Therefore there is no need to require redundant regulations within this area.

<p>Therefore no landscape requirements will be regulated for this area.</p>	
<p>5. Vehicular use interior landscaping</p> <p>a. The interior of all parking lots should have a minimum of ten (10) percent total landscape area. This area can be in the form of peninsulas, islands, or medians. No parking space should be more than fifty (50) feet from the trunk of a tree.</p>  <p>Figure 5.4 – Ten (10) percent total landscaped area (Robinette, 1992)</p>	<p>The newest Lafayette ordinance deals only with distances from tree trunks to parking spaces and the size of the island under those trees. This standard leaves less open space in a parking lot and helps to soften the overall appearance of a parking lot. The ten (10) percent figure is based on the figure from Robinette’s book (Figure 5.4) and from Jefferson Parish Ordinance 17499 Section XIII G –Commercial Parkway Overlay Zone Part B1. This is the amount of coverage intended to meet the goals of the Lafayette ordinance. If necessary, the numbers could be adjusted after implementation.</p>
<p>6. Travel lanes</p> <p>a. Automobile and commercial vehicle traffic lanes can be combined. If kept separate, auto travel lanes must be a minimum of ten (10) feet in width. Commercial vehicle travel lanes must be a minimum of twelve (12) feet in width. Combination lanes must be twelve (12) feet in width. Porous paving material is prohibited in these areas and is only allowed in laydown yards.</p>	<p>This standard comes from site visits and the realization that commercial vehicle drivers want and need more room to maneuver their vehicles. For a combined travel lane, it is best that the widest standard is used.</p>
<p>7. Loading zones</p> <p>a. Loading zones must accommodate two semis with trailers nose to tail in a single area with a passable thru lane. Minimum allowable loading</p>	<p>The actual layout of the loading areas were most influenced by the on site interviews with owners and managers. The marshalling area is essentially a large parking area. This area will serve as a</p>

<p>zone area is twenty four hundred (2,400) square feet. A marshalling area for two semis may be constructed. This area will be located near a loading zone and will serve as a transition area for trucks before unloading. The marshalling zone can house either both trucks in one place or in two separate locales. Minimum single truck space dimensions are twelve (12) by sixty (60) feet. Marshalling zones may not interfere with any vehicular use areas or loading zones. Vehicles may not park in the marshalling zone overnight.</p>	<p>staging area for trucks waiting to be loaded</p>
<p>8. Curb cuts</p> <p>a. All curb cuts must be located a minimum of one hundred twenty (120) feet apart and allow two way traffic to enter and exit. Each individual site is allowed a total of two (2) curb cuts to the main arterial highway.</p>	<p>Ideally, a standard would only allow one cut on to the main road. However, site analysis observations found that curb cuts often times set up a traffic pattern for the commercial vehicles.</p>
<p>E. <u>Landscape Requirements</u></p> <p>1. Landscape regulations set fourth in the following sections concern planting and structural elements. These standards will be considered minimum requirements. These requirements will be applicable to vehicular use areas, utility areas, service bays, loading zones, lay down and storage yards, site open zone planting areas, adjacent property planting buffers (buffer yards), street tree planting areas, habitat preservation areas, and sign monument areas. The landscape requirements will provide</p>	<p>The language and layout of this introduction resembles the Jefferson Parish 17499: Section XIII G, Part 6 "General Explanation". The primary difference is the requirement of installation of an irrigation system as an addition to the maintenance standards outlined in the new Lafayette ordinance (O-128-2001)</p>



<p>effective screening of vehicular use areas, utility areas, and loading zones from public streets, residential, commercial and general business districts. All landscapes must include a professionally installed irrigation system to assist in maintaining the landscape. All landscapes should be maintained as outlined in Section 9: Part V D of the Lafayette landscape ordinance O-128-2001. All plant material shall be chosen and installed as per the instructions given in the Lafayette Comprehensive Zoning Ordinance Section 9 Part D. No landscape area shall interfere with site triangles as shown in figure A-11 of the Lafayette comprehensive zoning ordinance.</p>	
<p>2. Interior lot landscape areas</p> <p>a. These areas will be a minimum of two hundred (200) square feet. Within the two hundred (200) square feet, a minimum of one class A tree with shrubs planted maximum four (4) feet on center and ground cover surface planted maximum nine (9) inches on center. Plants are to be from the approved list of plant materials. If a peninsula or island is to contain one or multiple live oaks, the perimeter of the planter area must be a minimum of the total expected canopy spread of the tree or trees. Ground covers do not include turf or pavement.</p>	<p>The ten (10) percent illustration is from Robinette's book (Figure 5.4) and the Jefferson Parish Ordinance 17499 Section XIII G –Commercial Parkway Overlay Zone Part B1. In combination with the parking space distance to tree standard, green parking lots would be established. Also, this standard would make a complete parking space into a planting bed. No curbing standards are established due to the newest parish ordinance O-128-2001 which amended the landscape area protection standards. In section V: Part A 2 the requirement is that all areas be protected by six (6) inch high anchored curb made from a few different material choices. The live oak standard is established up to keep impermeable paving from being used on the critical root zone.</p>
<p>3. Utility areas</p> <p>a. Utility areas include dumpster areas, waste storage areas, grease traps, and utility boxes. These areas are to be screened with opaque buffers.</p>	<p>Many different ordinances make provisions for utility area screening so this section was not based on any particular ordinance. The areas defined as utility areas come from observation of the smaller sites within</p>

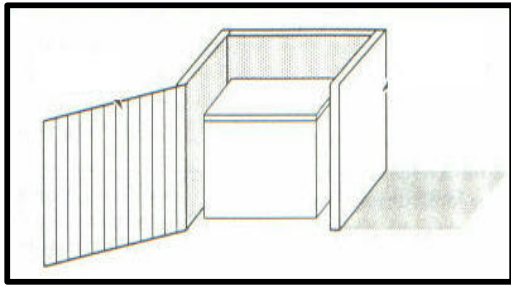


Figure 5.5 – Dumpster screen  
(Robinette, 1992)

- b. This buffer includes any evergreen shrub that grows to over six (6) feet on the approved plant list. These shrubs must be installed at a minimum three (3) to five (5) foot height and planted at three (3) to four (4) foot centers to achieve a solid hedge at maturity. Walls and fences may also be used but must be pre approved and made of approved materials.
  1. The screening materials used for these buffer zones may also be used together with lot buffer plantings.
  2. All buffers must be installed to give proper clearance for refuse removal trucks and service vehicles as well as technicians to enter and perform proper services.

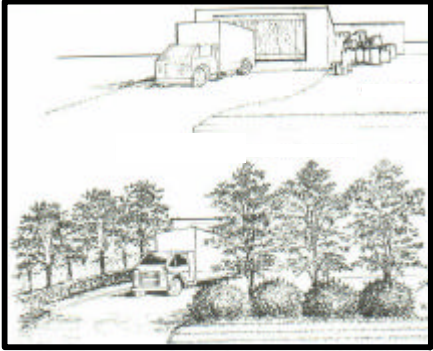
4. Service Bays and Loading/Unloading Area Landscape Standards

- a. All service bays and loading/unloading zones must be screened from view either by landscape or structure.

the corridor. The landscape buffer standards are set on the author's knowledge of screening materials through practical work experience. The heights of the plants at installation time are set up to achieve a certain amount of immediate screening. The standard will likely be followed to the lower side of the size numbers and the parish may need to reconsider the sizes after implementation. Figure 5.5 (from Robinette's book) shows how Arlington, Virginia accomplishes a simple yet effective utility screening. Allowing the combination of these areas will create alternatives for placement of utility areas, which in turn, should foster more creative site layout.

This is not based on any particular standard however, it accounts for ease of access for these industrial sites.

Service bay screening is a part of many ordinances but not currently addressed in any of Lafayette's ordinances. Material sizes and spacing were chosen based on practical experience. Figure 5.6 (from Robinette's book) shows the difference between a screened and unscreened loading area in Fairfax County, Virginia. The standard in Fairfax allows for combinations of low shrubs and tall trees, however, the

<p>b. Landscape screens must be evergreen shrubs or trees from the approved list, which grow to a minimum of ten (10) feet in height at maturity and have complete coverage to the ground and between them. These plants must be installed at a minimum of six (6) to eight (8) feet in height and placed (4) to (5) feet on center. Plants must be installed to proper spacing standards two (2) rows deep. Length of the screen will be based on the size of the area to be covered.</p>  <p>Figure 5.6 – Loading zone landscape screening (Robinette, 1992)</p>	<p>effect is still the same. The figure is for illustration only and is not meant to illustrate the technical standard.</p>
<p>c. Structural screens include masonry walls or fences as well as the actual building. Walls and fences must be of approved materials for the area. Zones located behind the physical building must be completely hidden from any view on the site with or without vehicles parked at them. Vehicles making use of the service bays or loading zones cannot block vehicular use areas.</p>	<p>This standard presents another option to designers on dealing with the screening of these types of use areas. Site observation revealed that trucks often were loaded or unloaded in the middle of parking or vehicular use areas causing many traffic flow problems. This standard should alleviate these issues.</p>
<p>5. Laydown and Storage Yard Landscape Standards</p> <p>a. Laydown and storage yards are</p>	<p>The concept of laydown yards is new to ordinance writing. Standards were based not only the goals of the ordinance but also</p>

<p>any area which equipment or goods are unloaded, loaded, or stored.</p> <p>b. Yards should be partially screened from view either with a four (4) foot fence or completely hidden by a six (6) foot fence or wall made from approved materials. This fence must have a functioning gate that serves as an entry and or exit.</p> <p>c. Laydown yards kept partially in view must keep a maintained floor. Materials of crushed limestone and granite are both acceptable. Concrete is an acceptable material for loading zones that coincide with a laydown yard. However, due to the occasional brittle nature of concrete in heavy industrial applications, it may become broken. Therefore, damaged concrete must be fixed or replaced in a timely manner. A time limit of one (1) month will be given from the time the concrete is found broken and the time it must be repaired.</p> <p>d. Laydown yards kept partially in view must keep a maintained floor. Materials of crushed limestone and granite are both acceptable. Concrete is an acceptable material for loading zones that coincide with a laydown yard. However, due to the occasional brittle nature of concrete in heavy industrial applications, it may become impassible under heavy commercial traffic. Therefore, damaged concrete must be fixed or replaced in a timely manner. A time limit of one (1) month</p>	<p>how the observations of site usage. The community takes great pride in these industrial businesses located within the corridor; therefore, the standard allows for a choice between partially and fully screening. The gate standard came from observations that some laydown areas had simply removed a section of fence for traffic to circulate in and out of. Adding gates to fences serves to enhance both appearances and security.</p> <p>In allowing the partial view of a laydown yard, one must insist that it has a neat appearance. The concrete restriction in the laydown yards is based on two purposes. First, it will cut down on the amount of on site paving which in turn slows runoff and is better for the environment. Second, the size and weight of the materials stored within the majority of these yards makes concrete an impractical product to use</p>
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<p>will be given from the time the concrete is found broken and the time it must be repaired.</p> <p>e. Laydown and storage yards may not be used for daily parking of vehicles or storage of hazardous materials, garbage, or waste. Long-term vehicle parking is permitted</p>	<p>In allowing the partial view of a laydown yard, one must insist that it has a neat appearance. The concrete restriction in the laydown yards is based on two purposes. First, it will cut down on the amount of on site paving which in turn slows runoff and is better for the environment. Second, the size and weight of the materials stored within the majority of these yards makes concrete an impractical product to use. Waste restriction is based on the amount of time materials may sit in a yard. If a certain piece of contaminated equipment is left in a yard for a prolonged period of time the contamination could spread into ground water sources. The standard allows long-term vehicle parking because in many cases the operations that occupy these sites rent equipment. These vehicles can go un-rented for long periods of time, so giving the companies an option on where these vehicles can be kept will help to organize the site.</p>
<p>6. Site Open Zone Planting Areas</p> <p>a. Open zone planting areas will equal five (5) percent of the total lot area. This area may be part of the ten (10) percent lot open space as dictated by Section 3 of the Lafayette Ordinance 0-128-2001. Also this zone can coincide with vehicular use area screens and planting areas. This area may also be the habitat preservation area on the lot.</p> <p>b. This area will contain plants from the approved list plant list found in Article IV section 9 of the Lafayette zoning ordinance and Appendix C of ordinance O-128-2001. Landscapes must be designed by a licensed landscape architect and approved by the overlay council.</p>	<p>The lot open space requirement was updated in industrial areas from five (5) to ten (10) percent this year. The ability for a designer to utilize this space while fulfilling other standards may encourage more creative land use. Including the habitat preservation areas into the standard may encourage developers to consider preserving part of the existing habitat rather than removing it and paying fines. The importance of a licensed landscape architect to design these sites is the best recommendations that can be made for material and location.</p>

<p>c. Site open zone planting areas may not be used for daily parking of vehicles, sales/display of goods, or storage of hazardous materials, garbage or waste.</p>	<p>During the observation and analysis of the corridor, it was noted that open space was utilized as almost the leftover space where a company or companies could store or display merchandise in plain view. Also, open space storage of garbage or hazardous material is dangerous because runoff rates can be higher.</p>
<p>7. Habitat Preservation Areas</p> <p>a. Any area or combination of areas on the lot that totals five (5) percent of the total lot area where approved pre existing plant species are untouched and protected during construction will be considered a habitat preservation area.</p> <p>b. This area may serve as the required open zone planting area, however may not be used for daily parking of vehicles, sales/display of goods, or storage of hazardous materials, garbage, or waste.</p> <p>c. All plant material credits can be found in section 2 part 2b of this ordinance.</p>	<p>Jefferson Parish does have a standard for plant preservation during construction in section XIII G: Part 6 K and served as a model for this standard. These areas are used to credit other on site planting areas. This standard breaks out the habitat preservation and requires it as a part of the overall landscape. The five percent figure is small however, it's a start, like the other standards that are based on a percentage of area, this standard should be studied and adjusted after implementation if need be. A reiteration of the standard set up in the open zone planting area, the goal of this standard is to let designers know that habitat preservation should always be taken into consideration.</p>
<p>8. Buffer yard landscape standards</p> <p>a. Buffer yards are planting beds located on the side or rear property lines of a property.</p> <p>b. Buffer yards are required on three (3) of four (4) sides including the rear of the property along the property line with single street frontage. On lots with dual street frontage a minimum of two (2) sides must have a buffer yard. The street tree planting zone cannot be used as a buffer yard.</p> <p>c. The buffer yard must be ten (10) feet in width on the sides and the rear. Side buffers are to be planted at three (3) feet on</p>	<p>For this project, buffer yards will work as sound barriers, divide all of the I1 and I2 land uses from areas immediately surrounding this district. Current Lafayette standards do not require buffer yards within industrial zones. In industrial settings, buffer yards work to screen, quiet noise, prevent development to the property edge, and delineate property lines. Buffers that surround all sides of a site except for one may create more useable land due to the ability to not see and hear the activities of the buffered site. Preventing the use of street tree planting area as buffer yards is intended to encourage creative design in the street tree planting area and the buffer yard.</p>

<p>center and reach a minimum four (4) foot height to form a solid screen. The rear buffer yard is to be planted to provide full opacity at maturity from the site behind it. Rear buffer yards must be installed in the first stage of multi stage construction if the area is not needed for construction traffic to exit.</p> <p>d. Earthen berms may also be used in place of plant material they may not exceed a one (1) foot of rise to four (4) feet of width. Fences and walls may not be used as a buffer yard.</p> <p>e. Parking areas situated in the front of businesses must be designated as visitors parking and partially screened from view. The visitor parking area buffer must be a minimum of six (6) feet in width and cover the full length of the visitor parking area. The area is to be protected from traffic with appropriate curbing material. All approved shrub and ground cover material may be used in this area but must be used in combination. This buffer yard may not be placed directly on the property line.</p>	<p>The width of a buffer yard is an issue that will need more practical testing in site-specific situations. Having a different standard for the rear buffer yard helps to insure that back-to-back properties do not clash with each other. The standard is a variation on New Orleans Article 10: Section 10.3.9 part one. This standard requires a fifteen (15) foot wide buffer to separate service roads from highways. The berm is utilized to achieve screening without plants. The ratio of one (1) to four (4) is included to ensure that berms are not built too steep and cause erosion problems. Not allowing fences and walls as stand alone buffer elements will prevent the kind of chain link property lines that exist in the area now. The purpose of using a semi-opaque screen is that the area is more of an extension of the street wall planting area and would still be visible unlike the street wall planting area when the visitors lot was full. The screen will still serve to soften the visual impact of the parking area but will not screen it completely from view, keeping the bed off the front property line and preventing interference with the sign monument planting bed or the street tree planting area.</p>
<p>9. Street Tree Planting Area Landscape Standards</p> <p>a. Due to the large size of recommended trees, street trees should be planted in groves a minimum of thirty five (35) feet apart but no further than seventy five (75) feet apart. A grove consists of a minimum of three (3) trees. Trees must be chosen from the Class A tree approved list found in Article</p>	<p>Most street tree planting area standards are within urban corridors, however the city of Lafayette has not yet adopted a street tree ordinance, making this unique. This standard is different from most due to the location of the street tree planting area next to an interstate highway. The openness of the sites allow for larger trees to be used. Groves are recommended for a more natural appearance. The objective of placing a spacing standard on the trees is to prevent total screening of the businesses on</p>

<p>IV section 9 of the Lafayette zoning ordinance and Appendix C of ordinance O-128-2001.</p> <ul style="list-style-type: none"> <li>b. Each tree must be landscaped at its base with a combination or shrubs and ground covers.</li> <li>c. Under tree bed radius must equal a minimum of one-half (1/2) the total expected tree canopy width at full growth.</li> <li>d. If conditions allow, the street tree planting area can also serve as the habitat preservation area on the site with no additional planting.</li> <li>e. The street tree planting area will also be treated as a separate zone. Once planted the responsibility for the maintenance of the street tree planting area will be the responsibility of the state government.</li> </ul>	<p>the highway and at the same time prevent the corridor from seeming barren. The base of tree landscape requirement is based on the standards for sign landscaping found in 17-21-6 of the Alameda overlay district zoning ordinance. The sign ordinance requires landscaping at the base of signage within the corridor. The signage standards from Alameda serve as the basis for standards set forth in this ordinance. In the sign ordinance in Alameda, the ordinance requires a radius of a planting bed to be one half the size of the sign. This idea was adapted by the author who used the tree canopy spread as a base for bed layout size. The intent of section d is to once again encourage developers to take advantage of and preserve existing site landscapes. Since the street tree planting area is in the right of way for the highway, the responsibility of maintenance falls on the state. The state should and would be held to the same standards a private landowner would in his own landscape.</p>
<p>10. Signage and Sign Monuments</p> <ul style="list-style-type: none"> <li>a. Billboards are permitted. However billboards defined as “jumbo, major, or minor” must be located a minimum of fifteen hundred (1500) feet apart on the same side or opposite side of the road.</li> <li>b. The following are the standards for signage for the area: <ul style="list-style-type: none"> <li>1. Maximum Height: Twelve (12) feet</li> <li>2. Maximum Width: Twelve (12) feet</li> <li>3. Maximum Area: 80 square feet per side</li> <li>4. Setback: Any position along the front property line</li> <li>5. Style: Monument 3D</li> </ul> </li> </ul>	<p>The Lafayette comprehensive zoning ordinance outlines the standards for signage in Article IV section 6. The only change this standard makes is in spacing to assist in reducing the visual clutter these signs produce.</p> <p>This set of standards is taken from the Alameda overlay zoning district 17-21-6. The goal of the signage standards was based on the need of the businesses for signage based on interviews conducted and finding a signage standard that met the goals of the overlay ordinance. The standards that the city of Alameda set forth would produce a very clean and organized look for their signage. This clean and uncluttered look will assist in unifying the Lafayette corridor.</p>



<ul style="list-style-type: none"> <li>6. Colors: Dark colored backgrounds, light colored lettering</li> <li>7. Landscaping: Area around sign radius at least one half height of signs</li> <li>8. Lighting: Lit from inside of landscape bed.</li> <li>9. Removable lettering: Only forty (40) square feet per side may be used for removable lettering, including fuel pricing.</li> <li>10. Materials: Materials must be approved and match materials used in the building.</li> </ul> <p>c. Directional signs may be used at entry and egress points and must only be used to give direction. These signs must match main sign in color and be a maximum of four (4) feet high with no more than twenty five (25) square feet on its face.</p> <p>d. Canopy signs and signs affixed to buildings are prohibited.</p>	<p>Directional signs add clutter to a site and this standard is meant to reduce the amount and size of the directional signage in the corridor. Interviews with business owners showed that the commercial vehicle drivers that service the businesses know where they are going because in general the same drivers service the same businesses. The removal of these types of signs will reduce visual clutter.</p>
<p><b>III. Administrative Procedures</b></p>	<p>Administrative standards are based on the administration section of an overlay ordinance for Metairie, Louisiana. These standards are found in the Old Metairie Neighborhood Conservation District- Part 2 code of ordinances, Chapter 40 zoning, Article X, sections 166-174 of the Jefferson Parish Code of Ordinances. This set of standards was chosen as a base because it appointed an independent committee to handle the majority of the decision-making rather than the parish government. This type of committee has not been used in the city of Lafayette. This type of committee would work well to handle this corridor, whose standards are different from the city and Parish of Lafayette.</p>

<p>A. <u>Structure</u></p> <p>1. The Committee</p> <p>a. A committee that will review any proposed development proposals within the overlay district shall oversee the Oil Patch Promenade landscape overlay district. After review, the committee will make recommendations to the city parish council on approval of developments that meet or surpass district standards. Exclusions, if needed, shall be given by the office of zoning and codes without review of the committee.</p> <p>b. The creation of this committee is solely for the Oil Patch Promenade Landscape Overlay District to carry out the goals of the landscape overlay ordinance.</p>	<p>It is important that the committee only hear, review, and vote to recommend or reject development proposals. The responsibility of issuing permits is best kept within the city parish government. This committee should only focus attention to the overlay zoning district so that the intent of this special design area is kept. Many city parish councils try to maintain jurisdiction over too many zoning issues, and often many issues are left unattended and therefore forgotten and the intent of the zoning ordinance can sometimes be lost.</p>
<p>2. Purpose</p> <p>a. The creation of this committee is solely for the Oil Patch Promenade Landscape Overlay District to carry out the goals of the landscape overlay ordinance.</p> <p>b. The committee will be assembled from six positions. A seventh, non-officer position will come from the office of zoning and planning. The six non-government openings will be appointed by the parish president and approved through the Lafayette Parish council.</p> <p>c. Three (3) of the six (6) non-governmental openings will be reserved for business owners within the overlay area. Of the remaining three (3) non-governmental positions, one (1)</p>	<p>This committee should only focus attention to the overlay zoning district so that the intent of this special design area is kept. Many city parish councils try to maintain jurisdiction over too many zoning issues and often many issues are left unattended and therefore forgotten and the intent of the zoning ordinance can sometimes be lost. The one member of the office of planning and zoning office is important to keep current with the events that transpire in the meetings and hearings of the committee. It is important that the member from the zoning office serve only as a spectator so as to not appear biased toward any of the committee business. The involvement of the people directly affected by the overlay ordinance is important to the success of the area. These active members can talk to their neighbors and colleagues to keep everyone informed on district issues. Also,</p>

<p>opening will be for a local practicing licensed architect, one (1) opening will be for a local licensed landscape architect, and one (1) will be filled by an engineer. All professionals must be familiar with and preferably a member of the Lafayette community. A silent committee member from the office of zoning and planning will be the current head of the department and will only advise and break tie votes.</p>	<p>these people are most interested in the development area because of the effect it has on their own property. The inclusion of an architect, landscape architect, and engineer is to provide a professional eye and opinion about developments. If the committee was comprised of only non-design/non-technical members, dangerous conditions could occur.</p>
<p>3. Appointment terms and conditions</p> <ul style="list-style-type: none"> <li>a. Committee members will serve in their appointed position for a five (5) year term. After that first term expires, the committee member may be appointed to serve one (1) more term. Terms must be served in a consecutive manner.</li> <li>b. The first committee will be appointed to staggered terms with two (2) appointments lasting one (1) year, one (1) appointment lasting two (2) years, one appointment lasting three (3) years, one (1) appointment lasting four (4) years, and one appointment lasting five (5) years. The member from the office of zoning and planning will serve their complete time in office. The two (2) members who are elected to the positions that serve the first one (1) year term are eligible to run for three (3) consecutive terms. Vacancies that occur for any reason before a term is complete are to be filled by an appointee chosen by the parish president to complete</li> </ul>	<p>In a development project like this, it is important that the elected officials can stay in their position to see a project through. Term limits were set to keep groups from forming a stronghold in office.</p> <p>The idea behind the staggered appointment is to keep a committee from vacating their positions all at once so that someone from one committee can move their expertise to the next. This will allow for a smoother transition. The parish president is to appoint the substitute members as needed to keep from unnecessarily involving the city parish council.</p>

<p>the term.</p> <p>c. Members of the committee, with the exception of the zoning and planning member, will be considered volunteers and will not be paid for their services. Gifts given to individual committee members are to become property of the general fund maintained for the overlay district.</p>	<p>These are volunteer positions to prevent the city from having to fund this committee. The lack of salary and prohibition of personal gifts will help keep decisions unbiased and fair.</p>
<p>4. Officer Duties</p> <p>a. Officer positions will be elected from within the committee. These positions will serve the longest terms in the staggered format of the original committee structure. The chairman will serve the five (5) year term, the vice chairman will serve the four (4) year term, and the secretary will serve the three (3) year term.</p> <p>b. The chairman will be responsible for calling and running all meetings of the overlay district committee. Also, the chairman will make sure records are kept of all meetings and are filed properly.</p> <p>c. The vice-chairman will fulfill the duties of the chairman in his absence.</p> <p>d. The secretary is to inform all parties of meeting dates, times, and locations. The secretary shall record the minutes of each meeting and forward the minutes to the chairman for approval and filing with the parish office of zoning and planning. The secretary shall notify the Parish government of the expiration of a committee member term is ninety (90) days prior to the expiration</p>	<p>Having the three head position serve the longest terms to start will assist the committee in not only getting a solid start but also having a smooth transition when it is time to leave office. Consistency when dealing with a project that may take many years to develop and needs to look as though it developed at one time.</p>

<p>date.</p> <p>e. Legal advice and guidance shall be provided by the parish attorney's office.</p>	
<p>5. Committee duties</p> <p>a. The committee is authorized to hold public hearings regarding development within the Oil Patch Promenade District. These hearings will hear requests for new construction and renovation. Before the hearing, the committee will review and discuss site plans submitted for development and their adherence to the guidelines of the district. Permitting will still be the responsibility of the parish only after the approval by vote of the development by the committee. The committee will also hear complaints and concerns dealing with non-compliance to the overlay district standards and rule on methods for compliance. However all appeals to committee decisions will be heard by the zoning board.</p> <p>b. The committee will not hear issues pertaining to interior renovation or structural renovation less than twenty five (25) percent of the total building square footage over a five (5) year period. These issues will only come to the attention of the committee if they make a site non-compliant to district standards.</p> <p>c. The committee may recommend the institution of a suit in order to prevent any illegal actions in violation of the standards of the overlay district.</p>	<p>Permitting and fining is best handled and will be handled by the city parish government. To lessen the burden on the city, the committee only serves to recommend what should and should not be developed and review those projects to assure compliance. If the committee were to handle permitting and fines, the paperwork process that the city parish government uses could be interrupted and cause confusion with development projects. Also, this gives the community a more personal touch on the district.</p> <p>Interior and small addition projects need not be the concern of the committee and would only take time away from issues that may be much more important.</p> <p>The committee does need the ability to take some type of legal action when needed so that the rules and regulations of this ordinance are not simply ignored.</p>

<p>d. The committee shall review the ordinance standards yearly and make recommendations to the parish council to update and change standards they deem to be in need of change.</p> <p>e. The committee shall also hear all petitions for variance within the zoning district and make recommendations to the parish zoning board as to the appropriateness of the variances to the district.</p> <p>f. The parish department of finance shall assist the committee in setting up and maintaining a financial account. This account will serve as a fund for renovation and maintenance projects that fall within the public realm of the corridor. Some of these projects include but are not limited to: streetlights, reforestation projects, signage for local attractions. This account will also pay legal fees. This account will only be accessible by the parish department of finances and all financial transactions must be made through it.</p> <p>g. The committee shall review all capitol improvement projects for public infrastructure to ensure that they comply with all standards outlined in the overlay district to maintain the integrity of the district.</p> <p>h. The parish government shall assist the committee in carrying out all of the duties and responsibilities given them, including appeals.</p>	<p>This gives the ordinance the flexibility to change with the times and deal with issues that may not have been of concern at the time of writing. All of the standards that deal with spacing and square footages and issues of the like can be adjusted if needed at these yearly reviews.</p> <p>These issues should be heard by the committee for three main reasons. First, it guarantees that the goals that the ordinance is meant to reach are followed. Second, it lessens the amount of hearings the city/parish government needs to hold. Lastly, it allows the committee to keep abreast of what projects are being proposed within the corridor.</p> <p>An account will be needed in which to deposit monies collected from hearings and fines. This money is best reused by using it for projects in the same area as the committee deems fit. The access to the account must be limited so that money is not mishandled.</p> <p>This is another method to keep the committee informed of projects that may occur within the overlay zone.</p>
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<p>B. <u>Review procedures</u></p>	<p>These standards are closely based on the Part 2 code of ordinances, Chapter 40 zoning, Article X, section 170 of the Jefferson Parish Code of Ordinances. The process used in that ordinance is thorough and deals with the same types of issues that may be found in this overlay zone.</p>
<p>1. Applications</p> <p>a. The overlay zone committee must review permission for permit consideration for any development projects within the Oil Patch Promenade that will affect this ordinance. This review includes site plan review and public hearing. The committee will then approve or disapprove the project based on its adherence to the ordinance standards. Upon approval, the committee will give its recommendation to the parish office of permits. It is then the developer's responsibility to secure all permits. The committee will not issue any permits for construction, demolition or occupancy. Upon the completion of the project, the full committee will survey the site to approve or disapprove the project based on the outcome of the development and its adherence to standards. If the site is not approved the developer/owner will be told immediately and cannot receive an occupancy permit until approval of the project is given by the council or by appeal.</p> <p>b. Application for committee review and public hearing should be given to the parish office of planning and zoning accompanied by the following.</p>	<p>These tasks could be done within the city government however to prevent bogging down the offices that would be affected by this ordinance the committee takes care of these responsibilities. The committee would be taking the burden off the department to constantly keep up with the goings on within the district. The committee serves as a check and balance for the city parish government which issues permits and enforces penalties.</p> <p>This paperwork is necessary to fully inform the city parish government and the committee as to all of the aspects of the development project.</p>

<ol style="list-style-type: none"> <li>1. List of names, addresses, and phone numbers of all parties involved in developing the project including all owners of the property or properties. Evidence, in the form of an affidavit, that all of the parties that are listed as property owners are in fact owners of the property is required.</li> <li>2. Location of lot lines and subdivision name. Any and all easements, right of way, servitudes and bounding streets of the property.</li> <li>3. The scope of the work including whether the work is demolition or new construction . All information requested in the site clearing section of this ordinance.</li> <li>4. Photographs or video of property to be developed. All images must accurately portray all elements of the site. Detailed documentation of location and perspective of each image is to be included.</li> <li>5. One full plan set must be submitted that is clearly labeled and dimensioned to show all elements of the site including but not limited to: building location and orientation, vehicular use areas, building elevations, drives and walks, location of all building entries and exits including service bay doors and loading bays, complete landscape plan including</li> </ol>	<p>This informs the committee and the city parish government to all parties affected by the development project. This paperwork will also serve as a method to inform abutting landowners of new development projects.</p> <p>This requires some type of survey to be done or plat to be secured. This document will prevent questions during the development of the project as to the locations of these boundaries.</p> <p>This will assist the committee and the city parish government in understanding the type of project being developed and the methods under which it will be developed.</p> <p>This will give the committee idea as to the character of the site without a site visit.</p> <p>These plans will give the committee and the city parish government the full scope of the completed development of the project. These plans would also inform the committee to the methods which the project will be developed by.</p>
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<p>irrigation plan and maintenance proposal, and any other elements that are outlined in the landscape overlay ordinance. Plan sets must be stamped and signed by the licensed professionals who prepared them.</p> <p>a. One set of submitted plans must be on twenty-four (24) by thirty-six (36) inch paper. Seven (7) copies of the same plan set must be submitted on eleven (11) by seventeen (17) inch paper. North is up on all plans.</p> <p>6. All other information required by Lafayette parish for the specific type of development.</p>	<p>This would give the committee a full size set of plans for consultation and personal plans for site observation.</p>
<p>2. Hearings</p> <p>a. To secure a hearing date, a fee of one hundred (100) dollars plus the cost of advertisement in the parish legal journal of the hearing is required at the time of submission of all materials. This fee will cover the cost of the meeting location and administration. The remainder of the fee will be deposited into the corridor account for future development and improvements within the corridor. Checks should be submitted to the parish office of zoning and planning and made out to the Oil Patch Promenade overlay district account.</p> <p>b. All meetings shall be open to the public and follow Roberts Rules of Order with the</p>	<p>This will insure that all monies needed to maintain the district and the committee will be available. The standard also prevents the committee from accepting any money to help prevent fraud.</p> <p>This will assure all meetings are run the same.</p>

<p>chairman presiding as the chair of the meeting. All parties unable to represent themselves may be represented by an attorney.</p> <p>c. Meetings will not be held if quorum of at least half of the committee is not present. Or in the case of natural disaster, public crisis or family crisis. The chairman will consider family crisis on a case-by-case basis. In these cases, all issues will be moved to the next hearing date.</p> <p>d. In the case of a developer or any type of representative not appearing, the hearing will not be rescheduled until all application materials and fees are resubmitted</p>	<p>Quorum is important to a meeting in which issues are to be voted on. Therefore so all are treated fairly a voting majority must be present.</p> <p>This standard gives fair hearing time to all and will avoid backlogs.</p>
<p>C. <u>Fines</u></p>	<p>Fines encourage developers to follow the rules set forth within the ordinance.</p>
<p>1. Penalties</p> <p>a. Noncompliance penalties to the standards of the ordinance will be deemed reasonable by the committee and will be levied by the city parish government in accordance to ordinance standards.</p> <p>b. Anyone willfully and knowingly demolishing or developing property before a public hearing will be fined no less than fifteen (15) dollars per square foot of property size and no more than fifty (50) dollars per square foot of property size. Amount of fine will be decided by the commission and will be paid to the overlay district fund.</p>	<p>This standard is referring mostly to vegetation credits.</p>
<p>D. Ordinance effective date</p> <p>1. Date</p> <p>a. This ordinance shall become effective upon the signature of</p>	<p>This is the City – Parish of Lafayette standard for choosing an ordinance</p>

<p>the Lafayette City-Parish President, the elapse of ten (10) days after receipt of the Lafayette City-Parish President without signature or veto, or upon override of a veto, whichever occurs first</p>	<p>effective date. Therefore as an addition to the Lafayette comprehensive zoning ordinance it too will follow the same procedures.</p>
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## Chapter 6: Conclusions

Landscape overlay zoning district ordinances are an effective tool that planners should consider more often when looking for alternatives to typical zoning district standards. The overlay zoning process gives the planner more flexibility to accentuate or preserve special areas within their city or town. The other advantage to this type of codification is that the underlying zoning district is not affected which bypasses the process of variances and redistricting. This paper should serve as a tool to help planners realize all of the advantages to writing a landscape overlay zoning district ordinance.

This thesis produced two documents that can serve as learning tools for both the city and parish of Lafayette and city planners around the country. The purpose of this project was to create and document a process for designing and writing a model landscape overlay zoning district ordinance. This process or a version of it could then be used by planners to assist them in creating such ordinances in their own communities. Through the research of other overlay ordinances, the author found that in the cities that have implemented such overlay ordinances started with a specific set of goals. Perhaps, the goal of an ordinance might have been to conserve and protect native vegetation, the actual ordinance had to deal with issues beyond those goals to ensure that the main objectives would be met. It is important for planners to remember that reaching the goal may mean going beyond the realm of the original intent.

The first goal of this project was to create a model landscape overlay zoning district ordinance using an industrially zoned stretch of highway in Lafayette, Louisiana. The objective of this ordinance was to unify successfully the many land use types found within the corridor and, at the same time, to create a green gateway that would introduce travelers on the new Interstate 49 connector to the Lafayette area. It was quickly discovered that it was very important to understand not only the site as a whole but also the individual sites of which it was comprised. This was especially important due to the sheer size and scale of the industrial sites found within this corridor. This meant that the ordinance would have to deal with not only the aesthetic makeup of the area but also the functional makeup on all scales. In the end, the document that was created as the landscape overlay zoning district ordinance deals with these issues and works to address both visual and functional aspects of site design.

Some of the methods used to deal with the issues of function and aesthetics include standards that address vehicular use area layouts, including standards for commercial and private vehicle use areas as well as combination use areas. These standards are concerned with the size of the areas, the location of these areas within a site, and types of uses that should be found within them. In focusing on aesthetic issues, the ordinance works to screen usage areas that are visually unfavorable. The kinds of standards set forth to deal with these aesthetic issues include building orientation to screen service bays and loading zones, planting standards that help to mitigate the visual impact of vehicular use areas, and screening standards to help hide outside storage areas. Planting standards are also utilized to buffer individual businesses from each other and surrounding land uses. Signage in the area is addressed by setting forth standards that both brings the signage down to human scale and works to clean up some visual clutter in the corridor.

Beyond aesthetics and function, the ordinance also sets standards for the best management practices in the development of a site. Issues like topsoil removal, plant preservation, and sediment loss and control are all outlined within the ordinance. These standards will help to insure that the best methods of site clearing and development are followed within the corridor.

In the process of writing the ordinance and looking to other ordinance's common issues, the author discovered that the types of standards to be implemented would be too much for a city council to supervise and still devote energy and time to other zoning and planning issues. Therefore, this overlay ordinance also creates a special group that is responsible to oversee the development issues within the corridor and report both positive and negative issues to the city council. This committee is not a separate entity of the city council but more of a finger of the council. The set up of this council would allow the corridor to be developed in line with its goals and intents.

Overall, the model ordinance is assembled and written in a way to assist designers in assembling a well thought out design and process for development while at the same time showing the advantages of writing an overlay zoning district ordinance. The standards contained within the ordinance are organized and written not to dictate but to guide the design to keep the design in line with the goals and ideals of the ordinance.

The second goal of this project was to document the process from which this design overlay ordinance was created. The basis for this process came from the most basic of design processes, problem recognition, research inventory, analysis, and design. Though this is a simplistic method of completing a design of this scale, it also shows that the process does not have to be difficult to result in an original design. The ease of this process should help planners to realize that overlay zoning districts can be an effective tool in their own cities. Planners should realize that this process of designing and writing an overlay zoning district ordinance is not linear, meaning that the process of designing and writing an ordinance takes many detours and can deal with many hidden issues.

Of the steps taken to get to the actual ordinance writing, the most important is the inventory and analysis stage. The findings of this stage guide all of the decisions made while writing the ordinance. Therefore this step should be of the heaviest concentration by a planner, next to the ordinance writing. As stated in chapter four, it is important to understand the uses of the sites that are being investigated. This understanding will be the most helpful tool in writing the ordinance because understanding the specific site uses will help one make the best recommendations in development of the area. Finding other overlay ordinances and similar documents that address overlay ordinance writing should be an important part of the inventory process. As well, these items can assist an ordinance writer in understanding how other overlay zoning district ordinances have worked to achieve the goals they set out to accomplish. Another advantage of having these types of documents close at hand is for the planner/author to understand how an ordinance of this type is laid out and the language used to write the ordinance.

An issue that this project did not explore but might be useful is proving that the use of overlay design and zoning ordinances is an effective method of codification. This could be explored by looking at the areas that have enacted overlay ordinances and perform a modified post occupancy evaluation to see if the ordinance is accomplishing the goals for which it was written. This would be quite important to the field of planning

because documentation of successful ordinances could become an important tool in justification for the use of overlay ordinance writing.

Further work on this project could become necessary based on the outcome of the I-49 project. Depending on the alignment and construction of the highway, it will be important to explore the subject of adapting this ordinance to best fit the “final” highway edge. This ordinance could also be used as a foundation to develop a full-scale master plan that could assist the city, state, parish, and advocates of the I-49 connector in encouraging community interest.

The design process could also be evaluated to a larger degree. Like the evaluation of an actual corridor, the documented design process could be given to designers and planners who may be in the process of or considering writing an overlay ordinance. After designers have used the documented process, they could evaluate its effectiveness during the progression of overlay ordinance writing.

This project would have benefited from engaging the public and local design professionals in discussion of this project. However, this project should be considered the first of many steps to a full mastery of this type of codification. If the public were to be brought into the project, they would need to be brought in after the inventory and analysis of the district was complete. They could be given the information and their feedback could be adopted into design ideas and standards. From those ideas and standards, an overlay ordinance could be adapted and changed to reflect their ideas. Local designer professionals could have been asked to evaluate the ordinance as a design document and to actually design sites from the ordinance. Evaluation of the document from designers would furnish feedback on readability of the ordinance and implementability of the standards it contains. Having designers design sites based on standards from the ordinance would show not only the public but also the city administration how these standards would look if implemented.

Other issues to be more closely considered in the development of an industrial area corridor are the effects/mitigation of noise and the treatment of industrial site runoff. These issues would be best handled in an industrial corridor that is directly adjacent to a residential zone. Also this project’s ordinance did respond to the runoff problem by requiring filtering because actual mitigation numbers must be explored more closely to truly understand what needs to be controlled. This would possibly require the expertise of both the botany and landscape architecture fields. The issue is important and could be written into overlay ordinances in the future.

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[www.cyburbia.org](http://www.cyburbia.org), Code website of Urban Insight and The University of Buffalo School of Architecture and Planning.

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## **Vita**

Neal Wesley Kessler was born in 1975 to Michael and Nancy Kessler in Fairfax, Virginia. He graduated from Herndon High School in Herndon, Virginia in 1993, and enrolled at the University of Oklahoma in Norman, Oklahoma. Neal met his wife, Jennifer, and was married in June 1997. After receiving a Bachelor of Science degree in Environmental Design in May 1999 from OU, he moved to Lafayette, Louisiana, and began graduate school at Louisiana State University in Baton Rouge, Louisiana. His first child, Gabriel Neal, was born in August 2001. Neal anticipates a May 2002 graduation with a Master of Landscape Architecture. After graduation, Neal plans to become a licensed landscape architect and open his own design practice.