Vacant Land
site strategies for new orleans

A Project Of
JERICHO ROAD Episcopal Housing Initiative

A Collaboration With
THE TULANE CITY CENTER

TABLE OF CONTENTS

LETTER FROM JERICHO ROAD

Dear Colleague:

Weeds grow to the sky. Vines blanket roofs, obscuring every window. The dumping of bottles and trash bags eventually turns into mattresses, tires, and the occasional car. Fires break out, endangering occupied homes nearby. This is the reality of blight in New Orleans; it's what happens when a property is ignored or abandoned. Not only is it a bothersome sight, but it also slowly brings down the surrounding neighborhood. Property values decrease, crime becomes more common, and the general hope of the community dwindles.

Today, blighted structures or empty lots mar thousands of properties in New Orleans, leaving almost no neighborhood unaffected. As a city, how did we get here? More importantly, what innovations, collaborations, and system fixes will facilitate a sustainable improvement to this pervasive and negative reality?

The answers to these questions are extremely complex. Rather than analyzing the entirety of the problem, our specific purpose with this project is to develop landscape design solutions for the empty lot. From our perspective, this is perhaps one of the most important components of a comprehensive blight strategy. On the one hand, our approach acknowledges that empty lots are likely to be a significant part of our urban landscape for some time to come. And, if this is to be the case, our work specifically highlights that resolving blight should encompass more than simply shifting ownership or mowing a lot, but should also progressively push towards creating a high quality on-the-ground experience at the neighborhood level. Our proposals are mostly interim strategies, in the sense that they still allow for a future home to be built on a property, but we also believe they are complementary strategies, in that they will improve many other aspects of city life and ultimately expedite the final goal of fully occupied neighborhoods. These are schemes which owners, a neighborhood, or the City of New Orleans could implement in order to ensure that the property doesn't negatively turn into an overgrown lot, or neutrally persist as a neighborhood's vacant space. As you read this book, you'll see that our solutions range from simple and scalable designs to the more complex and site-specific. Together, they form a comprehensive design answer to this daunting problem.

For the purpose of narrowing the scope of this project, many important blight-related topics will not be discussed. We will not extensively cover factors which contributed to our current dilemma, such as a stagnating local economy, decreasing population, and Hurricane Katrina; others do this elsewhere and for those unfamiliar with New Orleans history and current context, we recommend you explore these topics first. Nor do we examine or propose changes to improve governmental mechanisms and structures to, for example, penalize blighted property owners, assist owners willing to rebuild and reoccupy, demolish unsalvageable structures, or facilitate blighted property acquisition; we believe these strategies, as a first and most logical step, are being seriously analyzed, revised, and improved upon by the City of New Orleans. In general, we will not discuss blighted structures or the difficult decisions being made between

preservation and demolition. Finally, we do not discount the importance of improved economic and job conditions as an essential strategy to overcome blight, nor the need for higher quality and new housing opportunities to better serve the community.

In 2010, Jericho Road began to formulate and implement our vacant lot greening strategy. We believe that non-profits such as ours – with the flexibility to experiment and develop new ideas – can introduce and refine concepts at the neighborhood level, which can subsequently be expanded to benefit the entire city. However, where we are limited in our toolbox of skills and internal capacity to achieve this goal, we have found strength in partnership. We're extremely grateful to the team at Tulane City Center for applying their design and strategic thinking skills to this important issue, and especially to the faculty leaders – Dan Ethridge and Seth Welty – for their time, patience, and support in making everything come together. Through this productive collaboration, Jericho Road has a solid basis to push our ideas forward.

As a final point, the ideas formulated here are not meant to be a finalized set of solutions. Rather, these designs should serve as a launch point for a city-wide discussion and investigation to improve the empty spaces in-between buildings, and therefore improve so many other aspects of our blocks, our neighborhoods, and our entire city. Ultimately, it will take many individuals and entities working together to solve this problem; we welcome your input, your support, and your offers of collaboration to turn these ideas into a reality.

Sincerely,

Alison Ecker
Director of Vacant Land Management
Jericho Road Episcopal Housing Initiative

PROJECT INTRODUCTION

OUR CURRENT SITUATION: NEW ORLEANS' BLIGHTED AND EMPTY PROPERTIES

In New Orleans today, approximately 44,000 residential addresses are either blighted homes or empty lots, representing approximately 20% of all residential addresses in the entire city. [1]

Improved economic conditions and population growth rates are unlikely to quickly resolve this situation. Blighted structures, and their post-demolition by-product of empty lots, are likely to be a significant part of New Orleans' urban fabric for some time to come.

DISADVANTAGES (DO NOTHING) + ADVANTAGES (DO SOMETHING)

Allowing the status quo - of blighted structures or empty spaces - to persist leads to many negative outcomes. From increased crime to weakened property values, these properties affect many key issues confronting New Orleans today.

However, developing solutions to counter blight can reverse these negative trends and provide New Orleans advantages on many fronts.

WHAT DO WE NEED?

We need landscape design solutions to reactivate empty spaces with greenery and spaces to gather and grow. Within this booklet, we provide two sets of opportunities.

Scalable solutions come in the form of easy-to-implement and cost-effective landscaping ideas which, broadly implemented, can improve a majority of empty properties within the city.

Site-specific solutions recognize that, for a small portion of empty lots, community and financial support can help create more intense greening projects. Although only likely to be implemented under certain circumstances, the benefits of such efforts are also more far-reaching for the entire neighborhood and city.

Together, the scalable and site-specific solutions offer a holistic set of strategies to physically improve the vast landscape of New Orleans empty spaces, and therefore, we believe, improve so many other important issues facing our neighborhoods and city today.

OUR CURRENT SITUATION
NEW ORLEANS' BLIGHTED AND EMPTY PROPERTIES

Today, the New Orleans urban landscape is scattered with blighted and abandoned homes and empty and overgrown lots. How did we get here? A variety of trends and events – from changing housing preferences and faltering local economies to natural disasters and a collapsing real estate market – led to our current situation with neighborhoods, to varying degrees, exhibiting blight and emptiness.

A good place to start this story is 1960. Around this time, the population of New Orleans peaked at approximately 630,000 residents.[2] However, in the next 40 years, a variety of factors contributed to a substantial decrease in our population and increase in blight. Stagnant to sluggish job growth persuaded many residents to leave the city and discouraged the arrival of new residents.[3] At the same time, the city's shrinking population followed a nation-wide trend by making their way to larger lots and homes on the periphery of the city. The result? By 2000 the city's population had shrunk to around 485,000 residents as well as shifted toward newer subdivisions, further depleting the population of older neighborhoods.

Then, in 2005, Hurricane Katrina and Rita arrived, flooding almost 80% of the city and damaging 70% of all occupied housing units. [4]Questions abounded as to whether or not the population- and the city itself- would ever return. Yet, many came back and rebuilt their homes and their lives. Perhaps out of a desire to be part of rebuilding and revitalizing a storied American city, many new faces and families joined them along the way. By 2010, the population had rebounded to approximately 345,000.[5] Yet, this still left New Orleans about 285,000 residents short of its population peak.

Fundamentally, we are a city with more properties than people to live in them, and our current systems are ill-equipped to handle this reality.

As of the fall of 2010, this lopsided situation added up to approximately 44,000 residential addresses situated with blighted homes or simply existing as empty lots. This figure represents approximately 1/5 of all residential addresses, which is one of the highest such percentages of any city in the U.S.[6]

Yet, this situation is not evenly dispersed. While some older neighborhoods in the so-called 'sliver by the river' experience very little blighted or empty properties, other neighborhoods are overwhelmed by these conditions. In Central City, the neighborhood in which Jericho Road works and which is the case study of this investigation, nearly 25% of all residential addresses in September 2010 were identified as either blighted homes or empty lots.[7]

DISADVANTAGES (DO NOTHING)

By drawing from both studies and examples in other cities, we know that New Orleans neighborhoods and the city as a whole likely face numerous disadvantages by allowing the blighted and unoccupied status of properties to persist:

Health: Nearby residents face negative physical and mental health outcomes.

Adelaide, Australia: After accounting for social, demographic, and income differences, researchers found that those people living in neighborhoods which they perceived as highly green were 1.6 times more likely to have better mental health in comparison to those respondents residing in areas perceived as exhibiting low levels of greenness. [8]

Crime: The neighborhood experiences an increased rate of crime.

Richmond, Virginia: An examination of crime data from the mid-1990s found that "of all the economic and demographic variables tested, vacant/abandoned properties had the highest correlation to the incidence of crime."[9]

Property Values: Surrounding property values weaken.

Philadelphia, Pennsylvania: A 2001 study demonstrated a clear negative correlation between house values and proximity to vacancy; the closer a house was to an abandoned structure, the more the sales price dropped in value. Houses within 150 feet of an abandoned structure experience a net sales price loss of $7,627, and "all else being equal, houses on blocks with abandonment sold for $6,715 less than houses on blocks with no abandonment."[10]

Tax Revenue: Lower property values, coupled with public expenditures to mitigate blight, reduce tax revenue critical for local government operations.

Ohio: A 2008 analysis of eight Ohio cities demonstrated that 25,000 vacant and abandoned properties collectively contributed to yearly loss of $49 million in tax revenue; this loss in turn led to budget cuts and severely affected local government and educational services. [11]

City Services: Police and fire departments become strained.

Baltimore, Maryland: A recent study examined the amount of time- and therefore cost- for police officers and fire fighters to respond to calls on blocks with vacant properties; researchers calculated that each vacant and unsafe property led to an annual increase of $1,472 for police and fire services per block.[12]

Neighborhood Pride: Hope dwindles and the collective ability to fight for a neighborhood may be diminished.

Detroit, Michigan: In a city which lost a quarter of its population in the first decade of the 21st century, difficult scenarios lay ahead in terms of which neighborhoods will persist and which will perish. Yet, if people don't believe in a place and the hope for a better tomorrow, the collective ability to fight for the future of neighborhood is greatly diminished. A recent comment from a Detroit resident may sum up the spirit of many locals: "When I go in some of the neighborhoods now, I have tears in my face, I just can't believe what I see." [13]

ADVANTAGES (DO SOMETHING)

Yet, by taking care of the blighted conditions and reactivating the property through greening projects, our city can reverse the negative trends:

Health: Greening initiatives can improve our physical and mental health.

Indianapolis, Indiana: A study in this Midwestern city demonstrated a significant association between urban neighborhood greenness and childhood obesity rates. Controlling for socio-demographic differences, the analysis found that children living in greener neighborhoods had significantly lower body mass index (BMI) scores in comparison to neighborhoods with less greenness. In addition, children in the greener neighborhoods were less likely to increase their BMI over a two year time window. [14]

Crime: Nearby vegetation can be associated with lowered crime rates.

Chicago, Illinois: At the Ida B. Wells housing project – at one time one of the poorest neighborhoods in the U.S. – researchers studied the correlation between criminal activity and nearby levels of vegetation. Although most buildings were similar in appearance and quality, levels of vegetation varied drastically. Residents were mostly randomly assigned to housing units, so factors such as desire for trees or family type were not a common factor. The research found that "buildings with high levels of vegetation had 52% fewer total crimes, 48% fewer property crimes, and 56% fewer violent crimes than buildings with low levels of vegetation."[15]

Property Values: Cleaning, greening, and tree planting efforts can increase nearby property values.

Philadelphia, Pennsylvania: An analysis of a local non-profit's cleaning and greening program- which replaces derelict buildings and debris-filled lots with grassy, tree-lined landscapes- demonstrated that these efforts resulted in a 30% increase of surrounding housing values; in addition, new trees were shown to increase surrounding house values by 10%.[16]

Neighborhood Social Connections: Vegetation increases the chances that we will get to know, and build relationships with our neighbors.

Chicago, Illinois: Research conducted in the Robert Taylor Homes public housing development found that residents living closer to common spaces with trees and grass, in comparison to those living near barren spaces devoid of these features, "enjoy more social activities, have more visitors, know more of their neighbors, and have stronger feelings of belonging. Essentially, greener areas facilitate the development and maintenance of stronger social ties." [17]

Local Ecosystems: By strategically selecting the plants added to the urban environment, we can support biodiversity and wildlife habitat.

Portland, Oregon: Urban areas offer essential feeding and resting points for migratory species. Recognizing that their city "provides habitat for over 220 bird species, including 47 neotropical migrants, and 23 designated with state or federal at-risk status," Portland's Urban Bird Treaty was created in 2003 to educate the public on urban ecosystem needs for migratory birds while also supporting existing initiatives and new projects to conserve and improve the habitat for local migratory species.[18]

GROWING THE URBAN FOREST

It is a baseline assumption in this study that the addition of trees to the urban landscape is a positive development. We believe this is especially true in areas such as those we are focusing on here where there is a definite lack of an urban forest. Trees individually - and collectively as an urban forest - positively impact a neighborhood in a number of ways including;

Provides shade during times of extreme heat and humidity in our sub-tropical climate.
Improves the aesthetic quality of the street scape and the associated perception of the neighborhood.
Can improve local air quality.
Can lower utility costs for houses covered with sufficient shade.
Based on anecdotal evidence, enhances the marketability of a neighborhood and has the potential to enhance the value of an individual building.
Provides a critical framework for the development and maintenance of more complex habitat types and species diversity within an urban context.

The aerial photos below of adjacent neighborhoods illustrate two dramatically different urban forest conditions. The more forested area is a neighborhood with significantly higher real estate values and is, for some, considered a more desirable place to live. While many factors contribute to this situation, it is our opinion that a thriving urban forest and the environment it creates is a significant part of this equation.

Moving forward, we see ongoing Vacant Land Management practices as an excellent opportunity to plant and nurture a significant urban forest in Central City New Orleans.

number of vacant properties
26

average home sales price
$221,693

number of vacant properties
124

average home sales price
$134,780
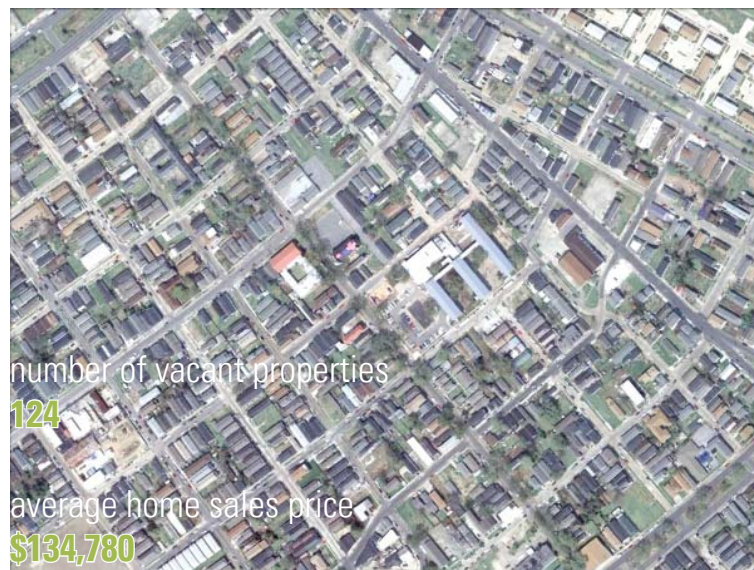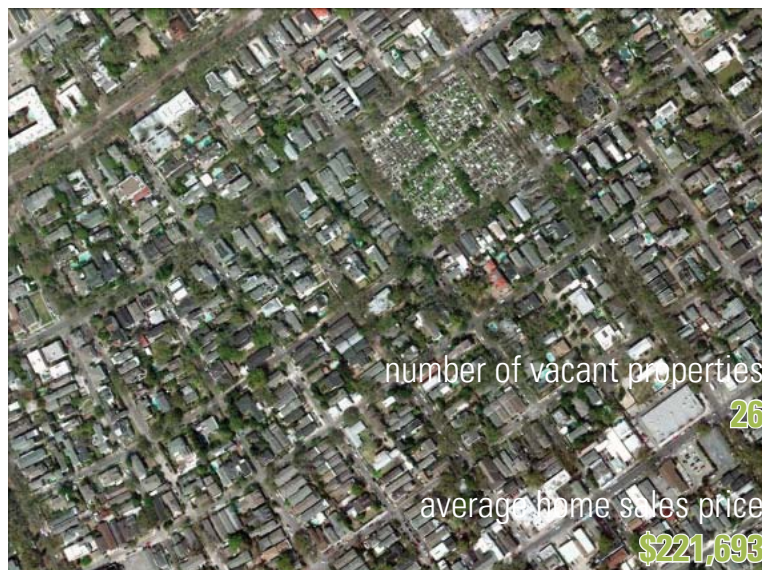
aerial images taken at same time and date, shown from the same scale
each image showing a new orleans residential area of similar density, housetype, and zoning

Central City   aerial comparison areas

faubourg tremé

faubourg livaudais

faubourg de lassize

faubourg lafayette

block with 1 vacant property
block with 2 vacant properties
block with 3 vacant properties
block with 4 vacant properties
block with 5 vacant properties
block with 6 vacant properties
block with 7+ vacant properties

MAPPING OF VACANT LOTS IN CENTRAL CITY

CITY-SCALE ISSUE

While the primary focus of this investigation is improving Jericho Road's vacant land management strategies, it is critical to also consider how these proposals could interact with and be supported by city government policies and programs. For the purposes of this publication we will outline three basic scenarios of neighborhood and city government partnership. Within each of these scenarios is a broad range of policy nuance, as we believe this allows for greater flexibility in developing locally grounded solutions.

In this brief exploration of possible neighborhood-city partnership models, we have deliberately excluded any scenario where the city government is not significantly involved. We strongly believe that these ideas need substantial support from city leadership and can only demonstrate sustained and scalable success if reliable public funding streams are identified and developed.

COMPREHENSIVE CITY-WIDE POLICY

The first scenario would entail an arm of city government establishing a comprehensive, city-wide vacant land management policy with financial assistance for the neighborhood entities owning and managing multiple parcels of vacant land. With a coordinated approach across neighborhoods, the principal advantage of this scenario is that local groups will have clear guidance and an established resource stream to improve their vacant land situation. However, comprehensive plans may lead to a lack of detail and flexibility, leaving some neighborhoods unable to maximize their efforts to best benefit specific lot and block situations. As the dynamics of vacant land vary drastically across the city, a single city-wide approach may be less effective in some neighborhoods compared to others.
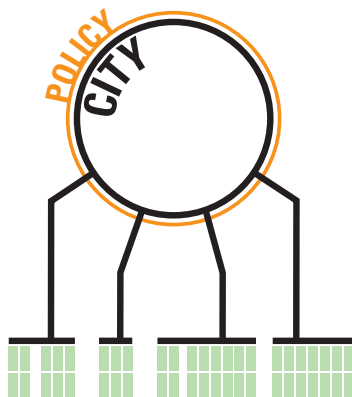
NEIGHBORHOOD-BY-NEIGHBORHOOD

Another scenario would shift the city's policy role from developing a single city-wide approach to creating strategies unique to each neighborhood. Similar to the first scenario, the city would offer financial assistance, but only after city staff and neighborhood organizations worked together to develop and approve a vacant land management plan. This approach allows neighborhood circumstances to be addressed on a case by case basis, likely leading to more effective immediate and long term solutions. However, as it is significantly more time consuming to work with individual neighborhood groups compared to developing a single policy, the principal concern with this approach is that it assumes a considerable human resources' investment, on top of the investment needed to make vacant land projects happen, from the city government.
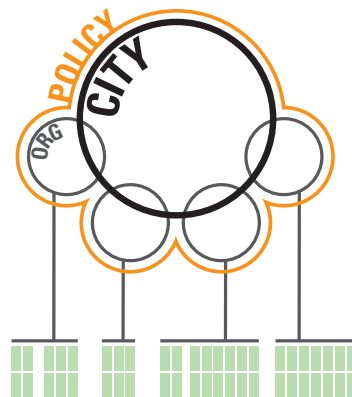
ORGANIZATIONAL LEADERSHIP

In the last scenario, the city government provides no policy leadership on this issue. However, the city still identifies a funding source for vacant land projects, which it will then distribute to neighborhood groups on a competitive basis. In this scenario, the city effectively utilizes a competitive environment to test theories and drive innovation towards the best local solutions to vacant land management. Here, we assume that after a series of demonstration projects, the city government would be in a better position to develop a more systematic policy and programmatic approach to the issue city-wide.
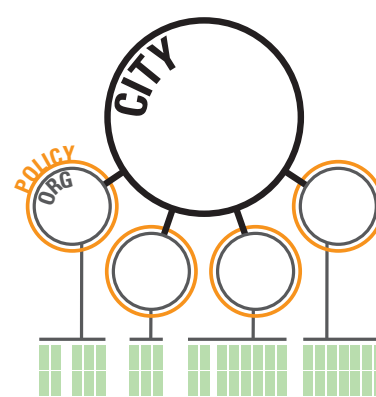
RESOURCE MAPPING

The following map outlines Jericho Road's currently-owned vacant parcels as of fall 2011. Although the quantity and location of vacant parcels held by community organizations will necessarily change over time, the resource map is intended to demonstrate the scale of intervention that a community group could take on. That is to say, whether a group addresses 'vacant land' as a parcel, a interrupted cluster of neighborhood land, or a citywide network of ecosystems has much to do with the amount of land that they have direct control over.

vacant property
JR-owned vacant property available for pilot project
JR-owned vacant property potentially available for pilot project

1928 First Street
34' x 60'

2238 Seventh Street
20' x 75'

2700 Danneel Street
27' x 80'

2900 Danneel Street
20' x 100'

1924 Sixth Street
25' x 100'

WHAT DO WE NEED?

The preceding analysis provides a basic, underlying framework to understand the state of blighted, abandoned, and vacant properties in New Orleans, and specifically the context of Jericho Road's work in Central City.

Although a multi-fronted strategy is needed to solve this complex problem, in this project we specifically examine the on-the-ground reality of a city dominated by empty or vacant lots. Why focus on this one aspect? Because vacant lots are a significant portion of the current blight figure in New Orleans. While improving systems to, for example, fine an owner of a vacant lot, or even facilitate new ownership, may lead a certain degree of improvement, in other cases the lot may remain just as empty or overgrown. Moreover, current demolition initiatives may remove a blighted structure today, but leave us with even more vacant lots tomorrow. Furthermore, economic and population growth are unlikely to quickly resolve this issue by filling up these spaces with new homes and businesses.

Although simply mowing lots is a practical measure to stabilize bad conditions, a more aggressive and innovative approach can turn our vacant lots into assets rather than just spaces. By developing landscape design solutions to reactivate empty spaces with greenery and places to gather and grow, we believe we can achieve this end.

Therefore, in the remainder of this booklet we compare existing conditions with two proposed sets of landscape design solutions:

Existing Conditions: Two current conditions are shown within the proceeding comparative matrix. First, Jericho Road's current "Grass + Fence" strategy of vacant parcel stabilization – which includes clearing the lot, installing and maintaining a pastoral fence, and maintaining groundcover – is utilized as the baseline to compare all other strategies. Second, we've also included a 'Grass Only' condition, which is typical of most vacant lots in New Orleans.

Scalable Solutions: These three strategies are easy-to-implement and cost-effective landscaping ideas which, broadly implemented, can improve a majority of empty properties within the city.

Site-Specific Solutions: The next three designs recognize that, for a small portion of empty lots, community and financial support can help create more intense greening projects. Although only likely to be implemented under certain circumstances, the benefits of such efforts are also more far-reaching for the entire neighborhood and city.

Together, the scalable and site-specific solutions offer a holistic set of strategies to physically improve the vast landscape of New Orleans empty spaces, and therefore, we believe, improve so many other important issues facing our neighborhoods and city today.

PROGRAM MATRIX

The success of a potential scheme can not be based on its immediate financial implications alone, and for this reason a matrix comparing relative values across social, environmental, economic, and organizational spectrum was developed.

All qualifiers are represented on a scale from 1-5 with 5 being the most desirable. All schemes are graded relative to a baseline condition of 3, which is represented by the lightly shaded cells on the chart.

Social value generally represents qualitative factors that attempt to gauge how neighborhood residents' quality of life will be impacted by long term implementation of a given scheme.

Environmental value speaks to conditions of localized ecosystems, resource management, and embodied energy.

Organizational values analyze the ability of entities to administer strategies and the impact upon development.

Finally, monetary value examines the financial implications of installation and maintenance.

Permanence- The relative degree of the scheme's permanence on the site; accounting for the amount of investment and energy required to implement, maintain, and deconstruct the scheme for future development.

SOCIAL

Community Usability- A gauge of how much the community is able to access and utilize the site, includes both programmed activities (i.e., community garden planting days) and informal gatherings (creating streetside venues for events).

Community Acceptance- The perceived degree that a community enjoys a given scheme.

Quality of Gathering Space- Representative of the quality of the degree the space encourages people to gather.

Aesthetic Benefit- A gauge of how desirable the given scheme appears- accounting for both the site itself and its impact on the streetscape.

Community Build Participation- This qualifier speaks to the degree of ease of engaging community groups and volunteers to design, implement, activate, and maintain the site.

Helpful to Community- The degree to which the scheme benefits the community in the long run; whether by improving the quality of life, economic conditions, or social conditions.

ENVIRONMENT

Ecological Benefits- Flora/Fauna- The amount by which each scheme fosters environments that benefit local flora (plantlife) or fauna (wildlife).

Stormwater Management- The degree to which a given scheme is able to capture rainwater and allow excess stormwater to infiltrate into the soil.

Environmental Benefits- The overall impact in the long-term of a scheme in terms of environmental quality on the site and streetscape.

Future Impact on Site Development- A measure of the degree to which a given scheme impedes or promotes development of building structures on the site in the future.

ORGANIZATIONAL

Organizational Value- The general amount of utility that the community organization gains from a given scheme- includes organizational use, stakeholder image, and alignment with core mission.

Overall Image- Represents the way in which the community organization is perceived by organizations, foundations, municipalities, etc.

Staffing Requirements- The amount of staffing manpower required to implement and maintain a given scheme- includes time spent on maintenance activities (repair, lawncare) and programming activities (community events, workshops).

Scalability Factor- The degree to which a given scheme can 'scale up' to address vacant land issues at a greater level.

Dependence on Scale- The degree to which a given scheme depends on having a critical amount of similar schemes to become a viable option. Schemes that are highly dependent on scale are likely to be addressed (and advocated for) at the policy level.

MONETARY

Gain / Loss- The projected financial gain or loss relative to the baseline condition; includes installation, maintenance, and programming.

Installation Costs- The projected first costs related to installation of the scheme.

Maintenance Costs- The projected cost related to maintenance over the first ten years after installation

		existing conditions		scalable proposals			site-specific proposals		
		grass + fence	grass only	strategic plantings	environmental enhancements	running groundcover	tree nursery	community garden / orchard	pocket park
		jericho road baseline	status quo	baseline proposal					
	permanence								
SOCIAL VALUE	community usability								
	community acceptance								
	quality of gathering space								
	aesthetic benefit - immediate								
	aesthetic benefit - mid-term								
	aesthetic benefit - long-term								
	community build participation								
	helpful to community								
ENVIRONMENTAL	ecological benefit - flora								
	ecological benefit - fauna								
	stormwater management								
	life cycle benefits								
	energy to implement								
	future impact on site								
ORGANIZATIONAL VALUE	org. value - immediate								
	org. value - mid-term								
	org. value - long-term								
	overal image - neighborhood								
	overal image - regional								
	overal image - national								
	staffing requirements								
	scalability factor								
	dependence on scale								
MONETARY	gain / loss - immediate								
	gain / loss - mid-term								
	gain / loss - long-term								
	installation costs								
	maintenance costs								

TYPICAL CONDITIONS

Although each vacant parcel comes with its own unique set of conditions that can prevent or promote a specific management strategy, the proposals that follow consider a typically-sized Central City lot with RM-4 zoning as a baseline condition. Some schemes will necessarily work better on larger sites while others will be more appropriate (and cost effective) on smaller sites. In fact, it is reasonable to assume that strategies tailored for these smaller lots are most important, because many vacant lots are vacant because they are substandard in some way that impedes development.
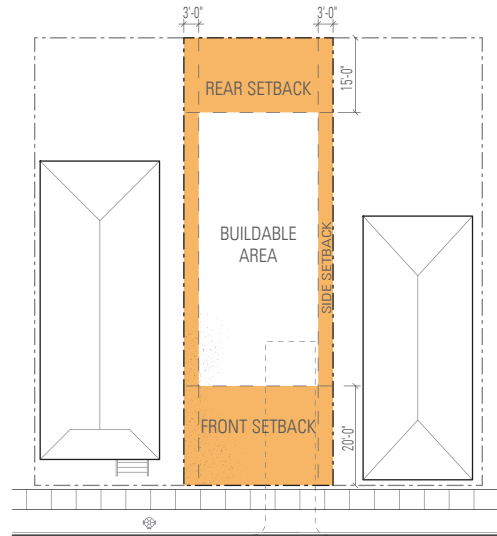
Typical Infill Lot
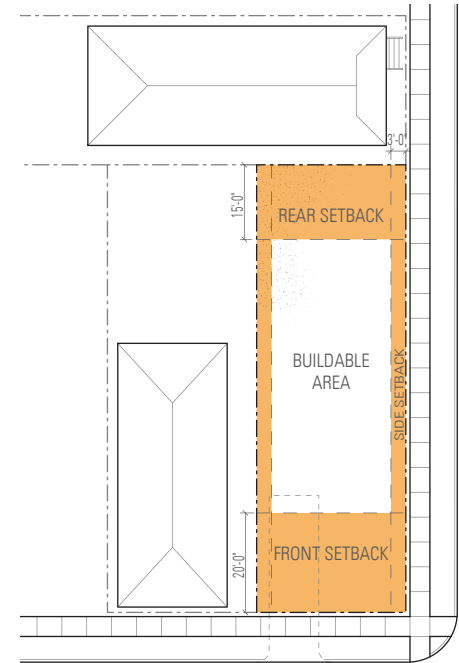
Typical Corner Lot

Most common residential zoning- RM-4

Typical Lot
Lot Size
Width (feet)	30
Length (feet)	90
Area (sqft)	2700

COSTS

In order to more accurately compare the different costs of the strategies, estimates have been derived for three phases: Phase 1 - Stabilization, Phase 2 - Installation, and Phase 3 - Annual Maintenance. The intent was to be able to compare similar cost types across different strategies to understand cost implications over time. For example, a strategy with very little installation costs might seem ideal compared to one with higher installation costs, but if the lot is expected to remain vacant for an extended period of time, maintenance costs become more important in evaluating which is better.

Phase 1 - Stabilization

All sites will require some stabilization investment; this would include debris removal, soil mediation, and other possible site preparations such as stump removal. These are standard costs associated with any lot strategy including building development. Costs would vary based upon lot size and amount of existing debris, not lot strategy.

Phase 2 - Installation

Costs would vary based upon which strategy is pursued. The longer the lot is expected to remain undeveloped, the greater the potential for more initial investment up front. The different lot strategies also provide possible opportunities for generating revenue.
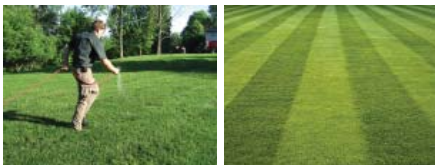
Phase 3 - Annual Maintenance

Any costs associated with maintaining a lot strategy after the installation investment. The intent of each strategy is to minimize maintenance costs; ideally each would be lower than current maintenance costs for maintaining a grass covered lot.

Additional Benefits

It is important to realize that the most critical financial implications of a given scheme are also the most elusive to capture in financial projections. These include such factors as increased property value (also impacts property tax revenue), increased quality of life, reduced municipal costs (linked reducing policing manhours and less strain on stormwater infrastructure), reduced healthcare costs (improved health conditions, lower instances of violent crime), and myriad related values.

STRATEGIC PLANTING
SCALABLE STRATEGY

This proposal focuses on maintaining low installation costs while addressing the long-term goal of rebuilding the urban tree canopy. The proposal combines the grass and fence of Jericho Road's current strategy while adding several trees in a manner where they would not encroach upon the lot's buildable area. Through the addition of strategically placed trees, this lot strategy will provide the fundamental greening to improve aspects of the neighborhood ranging from improved property values to resident health. At the same time, the trees will grow to a decent size prior to the development of housing, and can improve marketability and decrease the time it takes to sell the property. Additionally, it is believed that the trees will create additional value for the property once the lot has been developed.

WHERE: This baseline scheme is envisioned as an appropriate strategy for any vacant lot, regardless of location, size, or neighborhood condition.

DIRECT COST: This scheme is expected to cost marginally more than Jericho Road's baseline condition, with similar maintenance costs.

Phase 1 - Stabilization
Total $1500

Phase 2 - Installation
Grass	$1687
Trees*	$1650
Watering	$264
Fence	$375
Total	$3976

Phase 3 - Annual Maintenance
Mowing / Cleanup	$450
Fence Maintenance	$50
Insurance	$500
Total	$1000
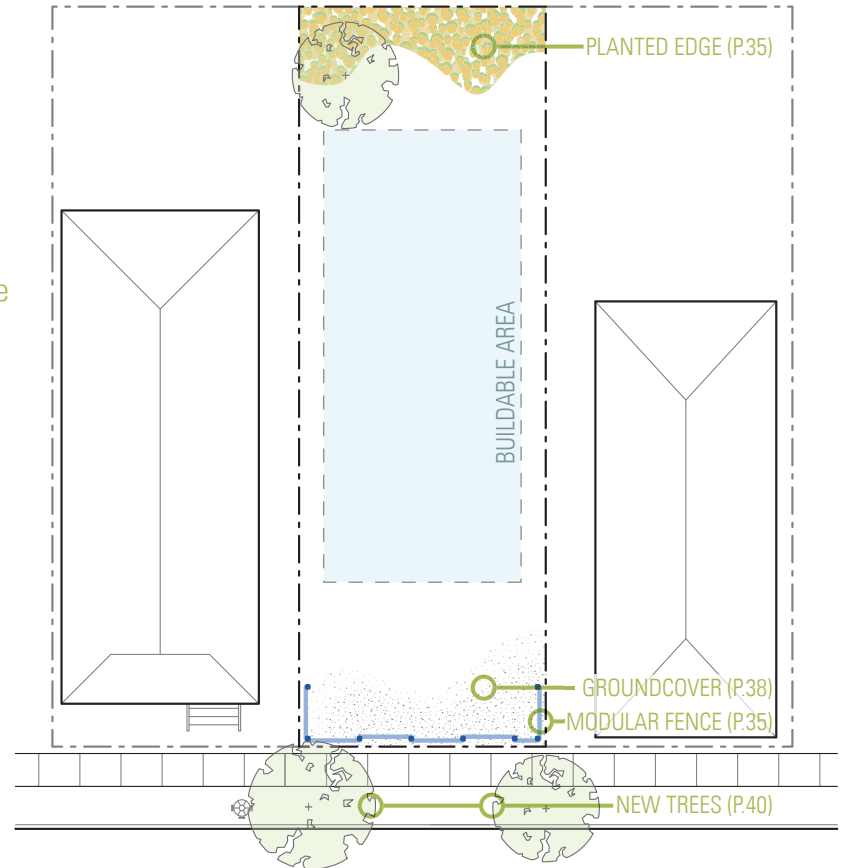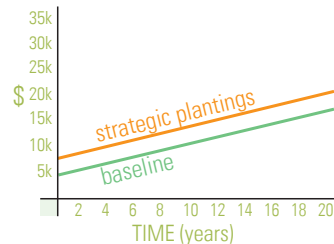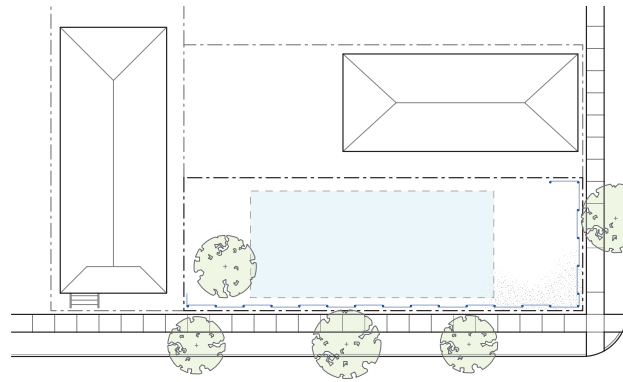
strategic plantings

baseline

$ (y-axis: 5k 10k 15k 20k 25k 30k 35k)

TIME (years) (x-axis: 2 4 6 8 10 12 14 16 18 20)

PLANTED EDGE (P.35)

BUILDABLE AREA

GROUNDCOVER (P.38)
MODULAR FENCE (P.35)

NEW TREES (P.40)

*price includes 8'-9' trees, water, and maintenance for one year
**represents the cost premium (or discount) over the course of 10 years compared to Jericho Road's baseline scheme

ENVIRONMENTAL ENHANCEMENT
SCALABLE STRATEGY

This scheme builds upon the Strategic Plantings strategy to better respond to specific conditions of urban enviornments and regional ecology. Environmental enhancements provide solutions to these challenges by incorporating one of two proposed planting schemes:

Stormwater Management:
Wetland plantings confinded to a portion of the site can mitigate street/sidewalk ponding and reduce loads on municipal drainage systems.

Cajun Prairie: A seedmixture of indigenous grasses and wildflowers scattered in a confined section provide areas of urban refuge for the flora and fauna of southern Louisiana.

WHERE:
Stormwater Management: These plantings are helpful anywhere, but particularly in areas that experience water ponding.

Cajun Prairie: Helpful on any vacant lot.

COST: Higher installation costs are expected to be tempered with lower maintenance costs in the long-run.

Phase 1 - Stabilization
Total	$1500

Phase 2 - Installation
Grass	$1687
Specialty Plantings	$4860
Trees*	$1650
Watering	$264
Fence	$375
Total	$8457

Phase 3 - Annual Maintenance
Mowing / Cleanup	$450
Fence Maintenance	$50
Landscape Maintenance	$450
Insurance	$500
Total	$1350
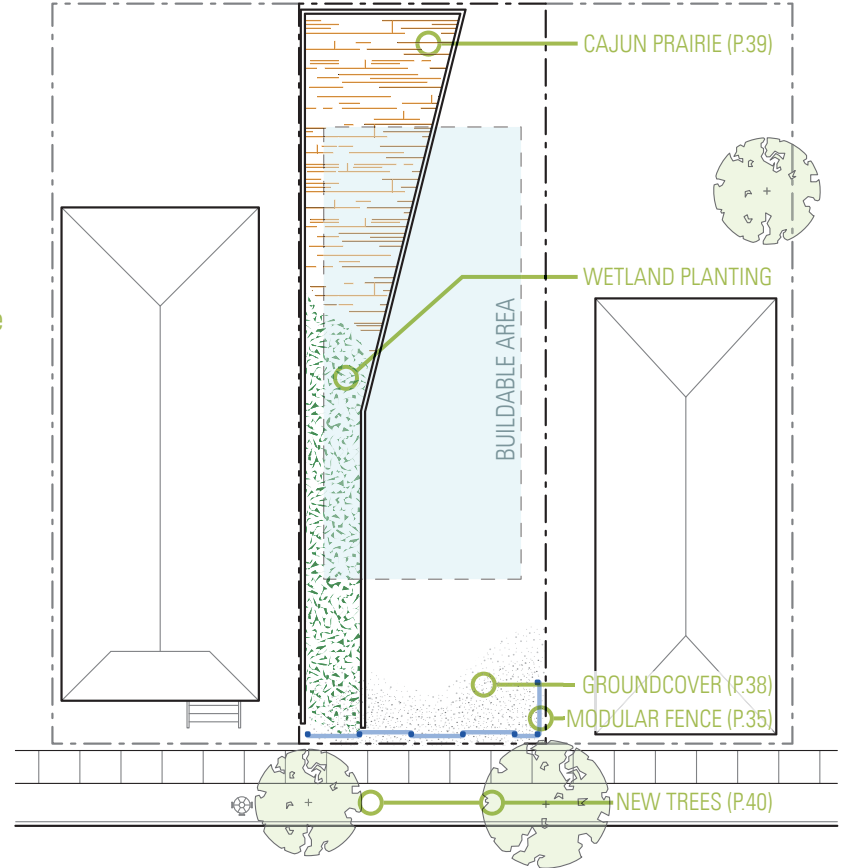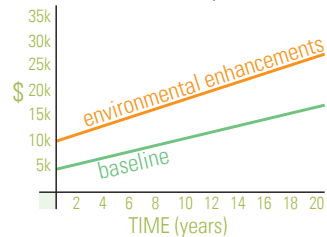
environmental enhancements

baseline

$ — 35k 30k 25k 20k 15k 10k 5k

TIME (years) — 2 4 6 8 10 12 14 16 18 20

CAJUN PRAIRIE (P.39)

WETLAND PLANTING

BUILDABLE AREA

GROUNDCOVER (P.38)
MODULAR FENCE (P.35)

NEW TREES (P.40)

*price includes 8'-9' trees, water, and maintenance for one year
**represents the cost premium (or discount) over the course of 10 years compared to Jericho Road's baseline scheme

SOCIAL VALUE

ENVIRONMENTAL

ORGANIZATIONAL VALUE

MONETARY
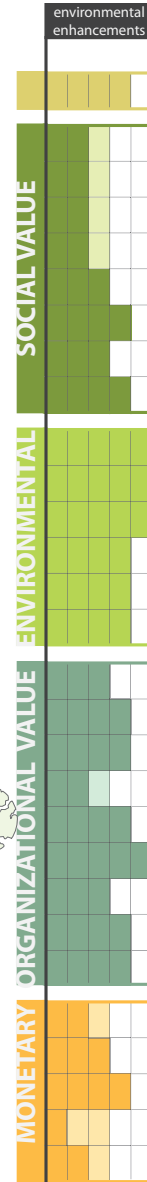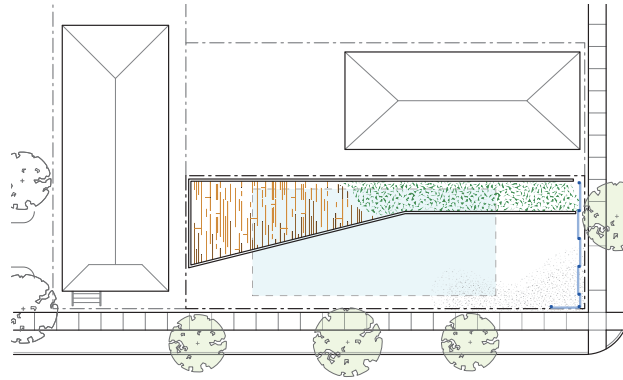
RUNNING GROUNDCOVER
SCALABLE STRATEGY

Running Groundcover enhances the basic Strategic Plantings scheme in order to provide an alternative groundcover option that is hardy, visually pleasant, and requires no mowing. Running groundcover has the opportunity to break the homogenity of vacant lots and provide greater complexity along the streetfront.

Groundcover can be installed in one of two ways. As a first option, clumps can be planted sporadically and allowed to grow across the site; although this minimizes installation costs, it also takes longer and costs more to develop. Alternatively, groundcover can be installed across the entire site for higher installation costs but immediately lower maintenance costs.

WHERE: This scheme is envisioned as an appropriate strategy for most vacant lots that are not expected to be developed in the very near future.

COST: Installation for this scheme is expected to cost substantially more than the baseline condition. However, lower projected maintenance costs allow the long-term potential of the scheme to maintain viability.
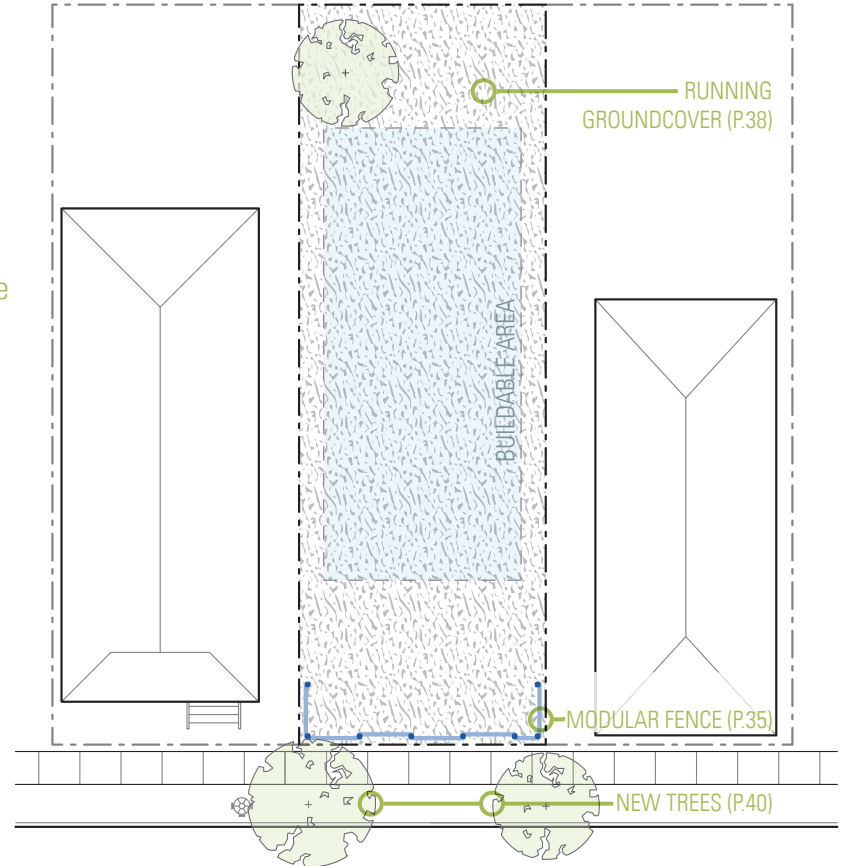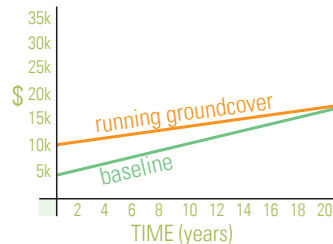
Phase 1 - Stabilization
Total	$1500

Phase 2 - Installation
Groundcover	$5000
Trees*	$1650
Watering	$264
Fence	$375
Total	$7289

Phase 3 - Annual Maintenance
Debris Cleanup	$100
Fence Maintenance	$50
Insurance	$500
Total	$650

running groundcover

baseline

$ (35k, 30k, 25k, 20k, 15k, 10k, 5k)

TIME (years) 2 4 6 8 10 12 14 16 18 20

RUNNING GROUNDCOVER (P.38)

BUILDABLE AREA

MODULAR FENCE (P.35)

NEW TREES (P.40)

*price includes 8'-9' trees, water, and maintenance for one year
**represents the cost premium (or discount) over the course of 10 years compared to Jericho Road's baseline scheme

SOCIAL VALUE

ENVIRONMENTAL

ORGANIZATIONAL VALUE

MONETARY
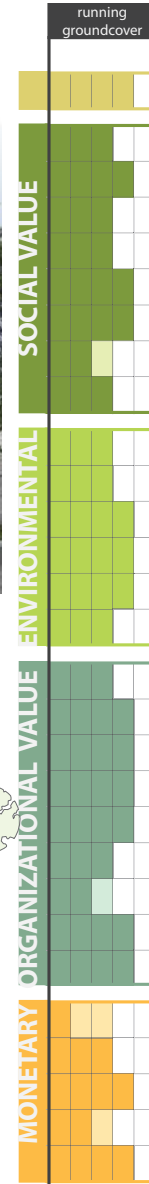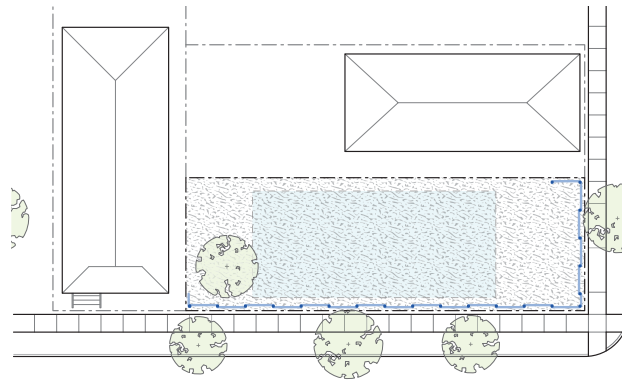
TREE NURSERY
SITE-SPECIFIC STRATEGY

Although this strategy proposes a tree nursery, the key concept of this solution is the notion that a land-holding community organization may allow partner groups to utilize vacant properties in exchange for activating and maintaining the lot. The community organization's advantage in this approach is that it gains all of the greening advantages for its neighborhood, yet does not have to bear the costs of installation and ongoing maintenance.

In this example, a tree nursery maintained by a partner organization is presented because it shows a particularly appropriate partnership that ties in well with the notion of rebuilidng an urban canopy. Presumably, an arrangement could be made that exchanges trees for a yearly lease in this case.

This strategy does not need to be exclusive for tree nurseries but should rather be viewed as representing possible range of partnerships with organizations that need access to vacant land.

WHERE: This scheme is specific to the property, development plans, and neighborhood conditions.

COST: The projected cost to the property owning community organization would likely include stabilization and insurance. After that, it would be the responsibility of the partnering entity to cover installation and maintenance costs.
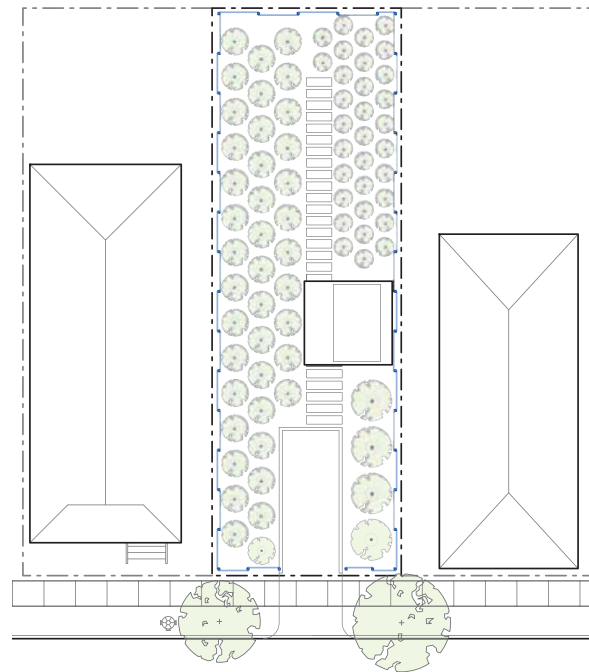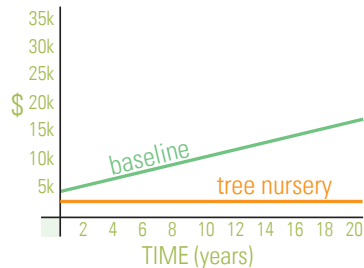
COMMUNITY GARDEN/ORCHARD
SITE-SPECIFIC STRATEGY

The Community Garden/Orchard model is a recognized and appropriate use to activate vacant land by engaging the community and providing space for residents to grow and access food. However, this model's implementation is limited because it requires strong buy-in and committment on the part of community members and organizations. Community gardens are often an organic implementation for vacant land use created by the neighborhood itself, but there is a limit to the quantity of gardens that a neighborhood desires and can support. The community garden requires the most active participation from residents to be a successful strategy; as a result the scalability is limited.

WHERE: Community gardens and orchards can work on all sizes of lots, but should be located within a neighborhood that demonstrates a desire and commitment to support and maintain the space.

COST: While installation costs can be minimized, maintenance and programming costs are substantial.


community garden / orchard

baseline

$ 35k 30k 25k 20k 15k 10k 5k

2 4 6 8 10 12 14 16 18 20
TIME (years)
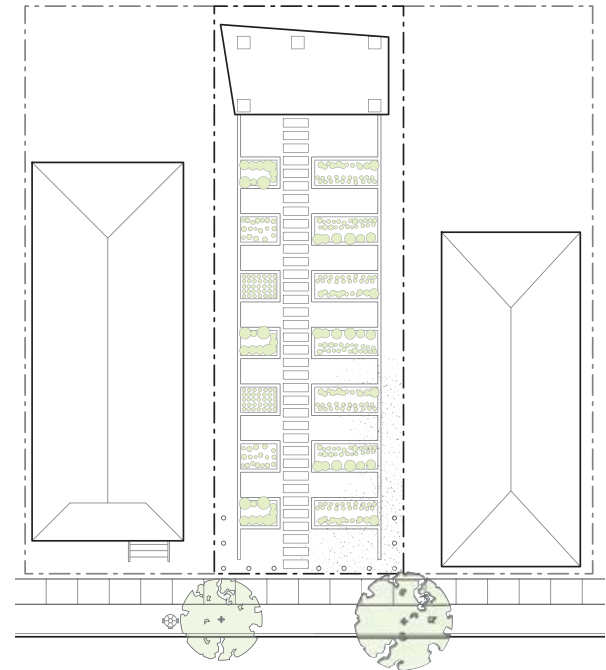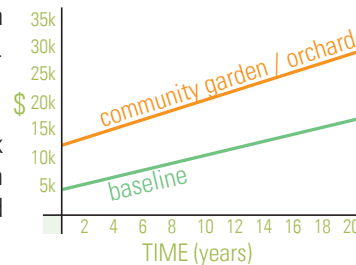
POCKET PARK
SITE-SPECIFIC STRATEGY

The implementation of a pocket park has the potential for strong community use, greater civic pride, improvements in real estate value, and increased quality of life. However, the potential downside of pocket parks are nearly the opposite of the upside if they are not cared for or are used for illicit activities. For this reason, establishing pocket parks should be approached with much consideration to the desire and capacity of a neighborhood to support such a site as well as the committment of a community organization to maintain a permanent neighborhood amenity.

WHERE: Due to the permanence of this scheme, lots that present impediments to future housing development are prime candidates for pocket parks. Through-lots which connect neighborhoods and streets are particularly appropriate as they can serve as a means of pedestrian connection.

COST: All cost phases of a pocket park are projected to be substantial.
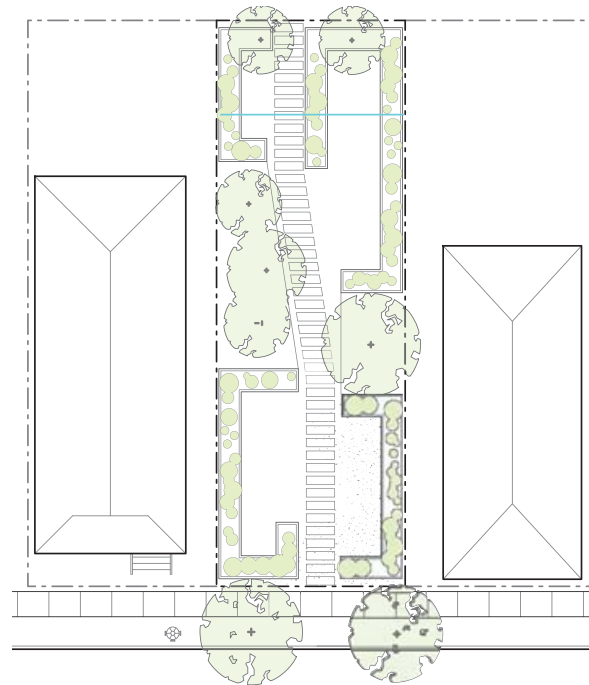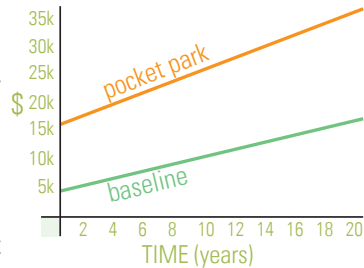
pocket park

baseline

$

35k
30k
25k
20k
15k
10k
5k

2 4 6 8 10 12 14 16 18 20
TIME (years)

SCALABLE COMPONENTS

The following pages outline specific elements that appear in the site plans and suggest strategies to determine where and when each type of 'Scalable Component' should be used.

EDGE CONDITIONS

Three different fence types have been developed that have related but unique goals. All three serve to define a perimeter, give a sense of ownership to the lot, and discourage the dumping of debris and other forms of vandalism. Each scheme provides varying degrees of permanence, porosity, and access to the site.

Modular Fence
The fencing system is a modular, removable system of stanchions and infill panels that allow visibility into the site but create a physical barrier to prevent pedestrian and vehicular access.
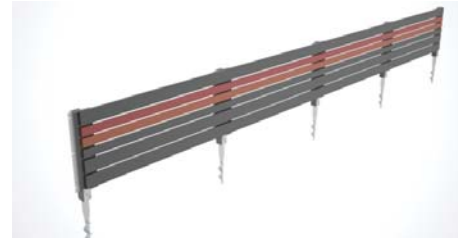
Bollard
Installing bollards on the site clearly marks the property edge and gives a sense of boundary, but allows visual and physical access into the site.
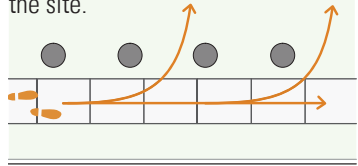
Planted Edge
An edge planted with tall, dense sunflowers provides a visual boundary for a property. This system is not intended to act as a front perimeter, but serves as the visual "end" of the site.
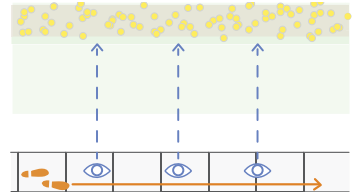
MODULAR FENCE
SCALABLE COMPONENT

The vertical stanchions utilize a ground anchor to allow the fence components to be disassembled and re-assembled while providing rigidity and uplift resistance when installed. All infill panels are 6' wide to allow for uniform spacing of stanchions.

A variety of infill panel types can be installed to satisfy the objectives of a particular site or neighborhood. The following examples represent a starting point and outline some basic options.

removable modular panels
construction type and material can
change based on need
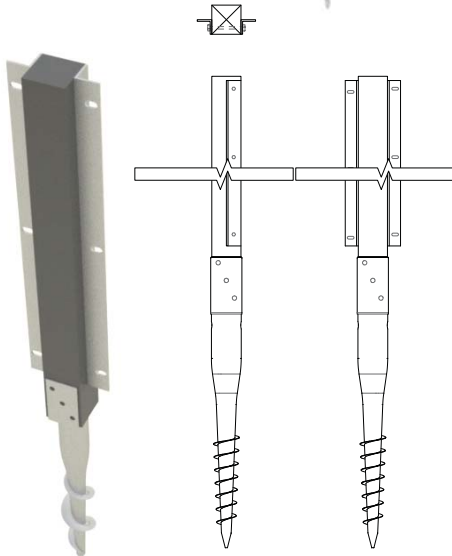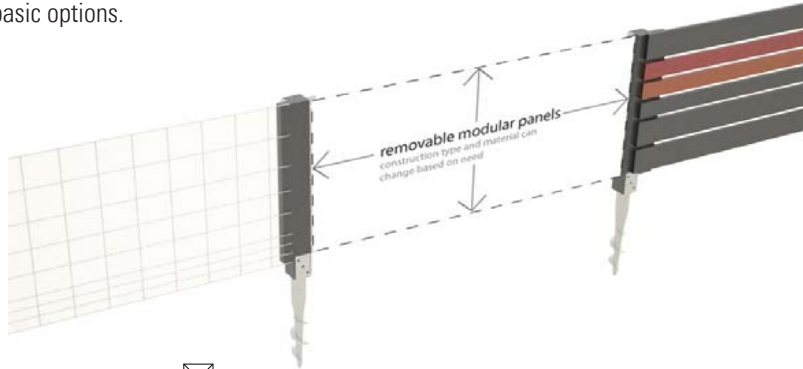
STANCHION
4x4(8') – $6.41
Mayne Ground Anchor - $29
(2) 2"x2"(4') Structural steel angle – $12.92
(6) 3"x ½" Galv. Hex Bolts – $8.16
Labor/Paint/Contingency- $25.00

Material Cost: $81.49

Cost + Labor: $105.93
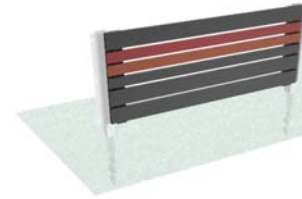
PAINTED WOOD
(5x) 2x4(6') – $7.68
(3x) 2x6(6') – $10.08
Labor/Paint/Contingency 10.00

Material Cost: $27.76/panel

Cost + Labor: $38.86

CORRUGATED METAL
3'x6' Corrugated panel – $21.73
(6) 3"x ½" Galv. Hex Bolts – $8.16
(2) 2x4(6') – $4.24
Labor/Paint/Contingency 10.00

Material Cost: $44.13/panel
Cost + Labor: $61.78

HOGWIRE INFILL
(3x) 2x4(6') – $6.56
Hogwire Panel 32"x16' - $25.00
Labor/Paint/Contingency 13.00

Material Cost: $32.06/panel
Cost + Labor: $44.88
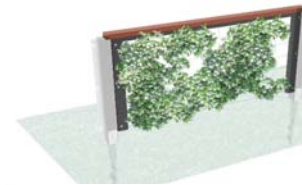
PLANTED FENCE
Hogwire Infill- $32.06
Jasmine + Install - $15.00

Material Cost: $47.06/panel
Cost + Labor: $65.88

COMMUNITY MURAL
(3x) 2x4(6') – $6.56
PT Ply- $18.00
Labor/Paint/Contingency 13.00

Material Cost: $15.06/panel
Cost + Labor: $21.08

BOLLARD

The bollard can be installed with prefabricated, pressure treated wooden bollards that are either driven into the ground or placed in a hole and backfilled.

Alternately, planted earthen bollards can be constructed utilizing off-the-shelf tomato cages that are wrapped on the interior with landscape fabric and planted with a running groundcover or succultent plant. This system requires more maintenance upfront, but is self-anchoring once the plants become established and provides an insertion of greenery into the landsacpe

WOODEN BOLLARD
CCA Bollard: $60.00
Installation: $40.00
Total Cost: $100.00

PLANTED BOLLARD
Metal Cable ties: (10pk) $8
Oregon Wire Traditional Round Tomato Cages - $25.70
½" Stainless Steel Welded Mesh (.047" Diameter) - $19
Various Seeds - $3
Labor $50.00
Total Cost: $105.70

PLANTED EDGE

To form a privacy edge along the back of the parcel, sunflower seeds can be dispersed in the desired area and- once the plants take root- will naturally help prevent the growth of competing weeds by blocking out sunlight. Although the sunflower patch is physically porous, a cluster of the plants can provide a pleasant edge condition and a livliness to an otherwise unactive piece of land.

SUNFLOWER SEED
Seeds Cost - $5
Labor $30.00
Total Cost: $35.00

GROUNDCOVER
SCALABLE COMPONENT

Any plant that grows out over a land area can be described as groundcover. The most common reference is lawn grass, but groundcover also encompasses vines, shrubs, and moss. Although a vacant lot's trees and other scattered plants are more likely to meet the visitor on the eye level, groundcover likely offers a larger visual experience of greenery.

Groundcover's basic purpose is to conceal barren earth, protect from erosion, and act as a source of water mitigation. However, for our purposes here, various types of groundcover offer different advantages in maintaining a vacant lot as well as improving the urban environment. From reducing monthly mowing costs to providing habitat for local flora and fauna, the four options presented demonstrate a range of possibilities.

The following information outlines basic benefits and disadvantages to several proposed groundcover types.

SOD (ST. AUGUSTINE GRASS)
PRICE: $200 per pallet ($2.50 /sf).

DESCRIPTION: St Augustine grass is the standard industry recommendation for low maintenance high success sod planting. St Augustine is widely available locally and is typically delivered to the site on a wooden pallet in a quantity sufficient to cover approximately 450 square feet.

ADVANTAGES: Sod is quick to install and requires little training and/or supervision. It is broadly culturally "acceptable" as a ground cover in an urban neighborhood context. Maintenance relies on simple machinery (lawnmower) and again requires little to no training or supervision.
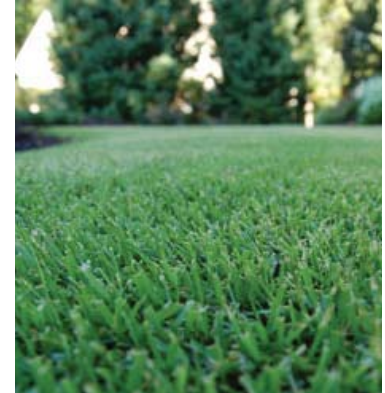

ASIAN JASMINE
DESCRIPTION: Asian Jasmine is an evergreen vine with dark green leaves and fragrant white flowers. When planted in an open field, its natural habit is to 'run' across the ground and cover the open field. Asian Jasmine is common locally in part because it thrives in New Orleans' relatively variable climate. Depending on resources available and the goals for a particular vacant lot, this plant can be planted at varying spatial intervals. In time, the plant will fill all spaces. If it is necessary to develop complete ground coverage in a short time frame, then more individual plants will need to be installed with smaller spaces between.

ADVANTAGES: The principal advantage of Asian Jasmine as a running ground cover is that, once established, it requires almost no maintenance other than trimming the edges to ensure it stays within the property lines. This plant is also widely planted in New Orleans' urban landscape. When planted with the goal of covering an entire vacant lot, Asian Jasmine will be both aesthetically pleasing and sufficiently uniform to conform with the urban setting.

DISADVANTAGES: the primary disadvantage of this strategy is the relatively high up-front cost. A young starter vine purchased in a 4" pot is a minimum recommended size when considering likely survival rates. Individual plants cost approximately $5. In a standard lot we anticipate needing no fewer than 500 plants. Labor for the initial planting is also fairly intensive.
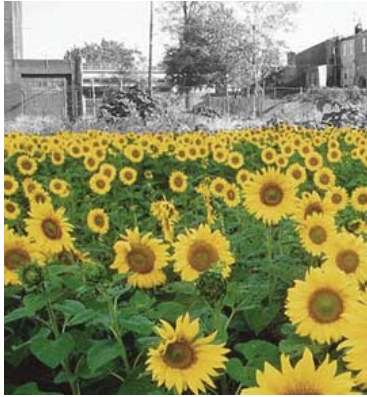
SUNFLOWER FIELDS

PRICE: Sunflower seed is widely available and typically costs $2/pound ($.01 cents/sf)

DESCRIPTION: Sunflower fields have been promoted as capable of many things in the context of urban vacant lots. Most notably in post Hurricane Katrina New Orleans, Sunflowers were endorsed as being capable of "removing" lead from soils. While the plants seem to have the capacity to do this at a limited rate, we would want to conduct significant further investigation before we made that claim for this project. Many attributes of Sunflowers are, however, irrefutable; their primary advantages are rapid growth rate and ability to shade the ground- which severely limits the growth of undesirable weeds. Sunflowers are also typically considered to be attractive, and are often considered appropriate in an ordered urban context. Installation of the field requires little training.

CAJUN/COASTAL NATIVE PRAIRIE

PRICE: Cajun Prairie seed mix costs $65/pound ($.35 cents/sf)

DESCRIPTION: Cajun or Coastal Prairie is a critically endangered ecosystem in the Gulf Coast. One possible approach to vacant land management could realize vacant land as an opportunity to stabilize this ecosystem - and in particular its seed stock- as a complementary project with a broader regional effort. Cajun Prairie seed mix can be purchased at a cost of $65/pound; while this cost is high, it can be offset by directly selling harvested seeds, or by entering into an agreement with habitat restoration professionals to receive a portion of seed revenue if a third party does this work.

ADVANTAGES: This approach would greatly increase the habitat value of any given neighborhood and would provide opportunities for urban communities to engage broader conservation efforts. We also feel that this approach could provide opportunities for access to funding sources not typically associated with urban land stabilization efforts. For example, additional funding could be obtained through green jobs training, environmental education, and partnerships with environmental advocacy groups. These opportunities would be needed to justify the extra cost of installation and maintenance, but also provide a compelling approach to viewing vacant land as an asset rather than a liability in need of low cost stabilization. It is possible to see this as an opportunity for environmental education and stewardship enhancement.

DISADVANTAGES: Cajun Prairie requires highly-skilled labor and intense maintenance in the first 2 - 3 years following installation. As stated above, these costs could be offset in a range of ways, but it must be acknowledged that a significantly greater investment is needed to establish this ground cover. The aesthetics of this approach may be initially objectionable to some community members who prefer more conventional concepts of urban vacant land. While Cajun prairie is beautiful to some people, it must be stated that the lots would be atypical in the ordered and well maintained urban context and may at times resemble weed filled areas.
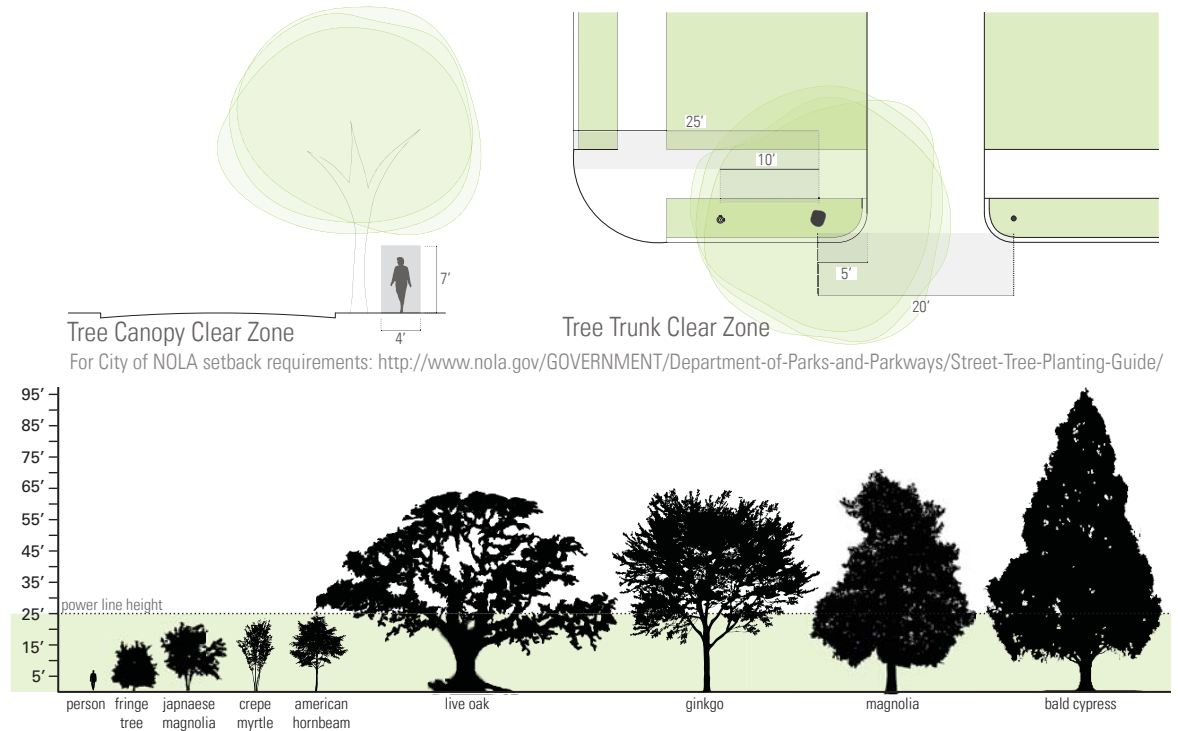
TREE SELECTION
SCALABLE COMPONENT

A tree grants so many advantages to a property and neighborhood. By inserting vertical greenery into an otherwise banal urban environment of grass, concrete, and buildings, residents' everyday quality of life improves. In turn, negative neighborhood-wide trends – in terms of decreasing property values or poor health outcomes – may begin to reverse. From providing shade on a glaring summer day to encouraging interested residents to purchase homes on fully greened streets, increasing tree coverage offers a viable strategy for any neighborhood.

Throughout this project, trees are consistently incorporated into vacant lot design schemes. Here we feature a variety of options which could be incorporated into nearly any strategy. However, this is in no way an exclusive list; New Orleans' climate supports a wide spectrum of options.

The cost to purchase and maintain a tree can vary drastically. Luckily, a number of local non-profits support the urban forestry effort by providing free trees to residents and other non-profits. By combining the donated tree

Tree Canopy Clear Zone

Tree Trunk Clear Zone

For City of NOLA setback requirements: http://www.nola.gov/GOVERNMENT/Department-of-Parks-and-Parkways/Street-Tree-Planting-Guide/

power line height

person | fringe tree | japnaese magnolia | crepe myrtle | american hornbeam | live oak | ginkgo | magnolia | bald cypress

with volunteer labor, a neighborhood could plant a bounty of trees with little or no upfront costs.

However, for logistical or varietal reasons, this may not be a viable option. In this case, trees somewhere between 4' and 7' can be purchased for local nurseries from $50 - $150; larger trees will likely cost more. If assistance is needed in digging the hole and planting the tree, likely an arborist will need to be contacted

and this will require an additional fee.

Finally, there is the issue of water. Luckily, most trees only need one year of consistent watering before they are able to survive unassisted. While a tree planted in front of an occupied house can easily and regularly be watered by the resident, the situation becomes quite tricky on a vacant parcel of land. One option is to sign a watering contract, perhaps for a fee, to a neighbor in order to

access their outdoor water line. A second option is to contract with a local arbor company with a water truck who could periodically re-water the tree. With both of these options, a plastic irrigation bag, capable of holding somewhere between 10 and 20 gallons of water, will need to be situated at the bottom of the tree in order to slowly release water over the course of a number of days, and thereby reduce the need for constant watering.

FRINGE TREE
Chionanthus virginicus
Height: 12-20'
Spread: 12-20'
Not susceptible to diseases or pests; adapts easily to difficult sites; white flowers.
Cost: $60

JAPANESE MAGNOLIA
Magnolia Liliflora
Height: 12-30'
Spread: 20-30'
Large, showy pink flowers; occasional problems with magnolia scale and sooty mold.
Cost: $80

CREPE MYRTLE
Lagerstroemia indica
Height: 15-30'
Spread: 6-15'
Fast growing; long-lasting color.
Cost: $100

AMERICAN HORNBEAM
Carpinus caroliniana
Height: up to 30'
Spread: up to 25'
Good shade tree; grows almost anywhere.
Cost: $140

LIVE OAK
Quercus virginiana
Height: 40'-80'
Spread: 80'
Large; low-reaching branches; sculptural form.
Cost: $60

GINKGO
Ginkgo biloba
Height: 50-80'
Spread: 30-40'
Interesting leaves; attractive shape.
Cost: $70

SOUTHERN MAGNOLIA
Magnolia grandiflora
Height: 60-80'
Spread: 40'
Large white flowers; fragrant; attractive leaves.
Cost: $60

BALD CYPRESS
Taxodium distichum
Height: up to 150'
Spread: 25'+
Louisiana state tree; produces round cones.
Cost: $80

*all costs based on trees 4-7' in height before installation and maintenance costs.

Jericho Road Episcopal Housing Initiative

Jericho Road Episcopal Housing Initiative is a leading neighborhood-based community developer working in a targeted area of Central City in New Orleans. We work to revitalize neighborhoods through an innovative three-tiered approach: our Community Development program fosters the human capacity that can promote positive neighborhood change by connecting local residents, building resident leadership, and supporting neighborhood associations; with Vacant Land Management, we develop solutions for the neighborhood and city-wide problems of blighted structures and vacant lots through property acquisition, high-impact lot greening and urban agriculture projects, and advocacy initiatives; finally, our Housing Development program creates healthy, accessible and energy efficient affordable housing opportunities.

Since the organization's founding in 2006, Jericho Road's investment of more than $5 million in Central City has resulted in meaningful participation and leadership opportunities for residents; stewardship of the built environment; for-sale single-family housing that is within reach for the local population; and the promotion of previously undefined neighborhoods as new places to be seen and affirmed, with value created by a diverse group of renters and homeowners.

Alison Ecker, Director of Vacant Land Management
Brad Powers, Executive Director
Sam Angell, Green Space Coordinator
jerichohousing.org

Endnotes

1 Allison Plyer and Elaine Ortiz, "Benchmarks for Blight: How many blighted properties does New Orleans really have and how can we eliminate 10,000 more?" Greater New Orleans Community Data Center, released October 27, 2010. This figure represents the most recently available data of blight and vacancy gathered in September 2010; as of this date, there were an estimated 43,755 residential addresses which represented blighted homes or empty lots out of a total of 212,986 residential addresses in the city of New Orleans.

2 Allison Plyer, "Population Loss and Vacant Housing in New Orleans Neighborhoods." Greater New Orleans Community Data Center, released February 5, 2011.

3 Allison Plyer and Elaine Ortiz, "Fewer jobs mean fewer people and more vacant housing." Greater New Orleans Community Data Center, released May 2, 2011.

4 Melissa Schigoda, "News Release: Facts for Features." Greater New Orleans Community Data Center, released August 19, 2011.

5 Allison Plyer, "Population Loss and Vacant Housing in New Orleans Neighborhoods." Greater New Orleans Community Data Center, released February 5, 2011.

6 Allison Plyer and Elaine Ortiz, "Benchmarks for Blight: How many blighted properties does New Orleans really have and how can we eliminate 10,000 more?" Greater New Orleans Community Data Center, released October 27, 2010. This figure represents the most recently available data of blight and vacancy gathered in September 2010; as of this date, there were an estimated 43,755 blighted residential address or empty lots out of a total of 212,986 addresses in the city of New Orleans.

7 Special analysis by Greater New Orleans Community Data Center of HUD Aggregated USPS Administrative Data On Address Vacancies. Out of a total of 9,713 residential addresses, 2,297 can be identified as blighted or empty lots, or 23.6% of Central City addresses.

TULANE CITY CENTER
Tulane School of Architecture

The Tulane City Center houses the Tulane School of Architecture's applied urban research and outreach programs. Programs of the City Center vary over time, but share a focus on improving cities - particularly our home city of New Orleans - through fostering global urban research, the development of flexible and innovative urban strategies, and the provision of environmentally and culturally informed principles to guide the design and revitalization of the contemporary metropolis. An important aspect of our work is to ensure that, where appropriate, our research is activated through design and construction and/or advocacy and education.

Seth Welty, Faculty Lead
Dan Etheridge, TCC Co-director
Evan Amato, Graduate Research Assistant
David Fruzynski, MBA Candidate
Mary Beth Luster, TCC Intern

http://www.tulanecitycenter.org

Endnotes, continued

8 T. Sugiyama, E. Leslie, B. Giles-Corti, and N. Owen, "Associations of neighbourhood greenness with physical and mental health: do walking, social coherence and local social interaction explain the relationships?" Journal of Epidemiology and Community Health 62, no. 5 (2007).

9 Joseph M. Schilling and Naomi Friedman, "The Revitalization of Vacant Properties: Richmond, Virginia Case Study," (Washington, DC: International City/County Management Association, 2002): 27 (as cited in The National Vacant Properties Campaign, Vacant Properties: The True Costs to Communities (Washington, DC: August 2005): 3.

10 Eastern Pennsylvania Organizing Project and the Temple University Center for Public Policy, with assistance from Diamond and Associates, Blight Free Philadelphia (Philadelphia, PA: October 2001): 22.

11 Community Research Partners and Rebuild Ohio, $60 Million and Counting: The cost of vacant and abandoned properties to eight Ohio cities (Ohio: February 2008): i.

12 Bob Winthrop and Rebecca Herr, "Determining the cost of vacancies in Baltimore," Government Finance Review (June 2009): 39.

13 Rukayya Ahsan-McTier, as quoted in Monica Davey, "The Odd Challenge for Detroit Planners," New York Times (New York, NY), April 5, 2011. Accessed January 30, 2012, http://www.nytimes.com/2011/04/06/us/06detroit.html?pagewanted=all.

14 Janice F. Bell, PhD, MPH, Jeffrey S. Wilson, PhD, Gilbert C. Liu, MD, M, "Neighborhood Greenness and 2-Year Changes in Body Mass Index of Children and Youth," American Journal of Preventive Medicine 35, no. 6 (2008): 547

15 Frances E. Kuo and William C. Sullivan. "Environment and Crime in the Inner City: Does Vegetation Reduce Crime?" Environment and Behavior 33, no. 3 (2001): 343 – 367.

16 Susan Watcher, "The Determinants of Neighborhood Transformations in Philadelphia – Identification and Analysis: The New Kensington Pilot Study." The Wharton School, University of Pennsylvania (Philadelphia, PA), July 12, 2004.

17 Frances E. Kuo, William C. Sullivan, Rebekah Levine Coley, and Llesette Brunson, "Fertile Ground for Community: Inner-City Neighborhood Common Spaces." American Journal of Community Psychology 26, no. 6 (1998). As quoted from a poster summarizing this study, and produced by the University of Illinois at Urbana-Champaign, Landscape and Human Health Laboratory.

18 "Urban Conservation Treaty for Migratory Birds Portland, Oregon," U.S. Fish and Wildlife Service. Accessed February 8, 2012 from http://www.fws.gov/migratorybirds/partnerships/urbantreaty/UrbanTreatyPortland.html.