LOUISIANA SPEAKS:
PLANNING TOOLKIT

URBAN DESIGN ASSOCIATES

LETTER FROM THE GOVERNOR

To the Residents of Louisiana:

Out of the devastation caused by Hurricanes Rita and Katrina have come hard-learned lessons. Among them is this: To rebuild Louisiana safer, stronger, and smarter – and to safeguard the long-term future of our State – we must plan well, with sensitivity to the goals of our citizens, with respect for the natural systems we steward, and with full awareness of the benefits and consequences of our development decisions. The Louisiana Speaks Planning Toolkit, a joint effort of the Louisiana Recovery Authority, the Center for Planning Excellence, and Urban Design Associates, is intended to help ensure that rebuilding efforts are performed well and that the planning underway for the future of our State supports the aspirations of our citizens for generations to come.

The Planning Toolkit will serve as a valuable resource to all who are engaged in planning the future of the communities and regions of our State. Using a reader-friendly format, the Planning Toolkit presents many of the most innovative and progressive methods of planning and urban design. It distills the ideas and techniques used by planners in the Louisiana Speaks program, making that information available in this succinct form for use by communities throughout Louisiana.

>> The Long-Term Vision Plan, developed by a team led by Calthorpe Associates, provides a series of tools ranging from GIS mapping to techniques for citizen engagement and the creation of alternatives as a way of debating public policy.

>> The Demonstration Charrettes, led by Andrés Duany of Duany Plater-Zyberk & Company, provide on-site examples for applying principles of New Urbanism to our rebuilding and long-term development challenges and opportunities using such tools as the Transect and SmartCode.

>> The Sustainable Design and Smart Growth principles included will provide ways of protecting our agricultural areas and sensitive wetlands as well as help direct future development into more sustainable patterns than have been used in the recent past.

The Planning Toolkit also contains resource listings that direct readers to sources of more in-depth information on each topic addressed.

Drawing from all of these programs, our goal is to establish a new standard of excellence in planning, not only for Louisiana, but for the nation. I urge all of you who are engaged in the process of planning the future of our State to use this Planning Toolkit. Our thanks go to the many agencies, organizations and professionals who contributed to its preparation.

Sincerely,

Kathleen Babineaux Blanco

Governor Kathleen Babineaux Blanco

REGIONAL PLAN   CITY AND TOWN PLAN   NEIGHBORHOOD PLAN   BLOCK PLAN

TOOLKIT

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Why was this Planning Toolkit created?

Hurricanes Katrina and Rita left South Louisiana with urgent needs to rebuild houses, businesses, neighborhoods, towns, and parishes. The devastation wreaked by those two storms and their aftermath also presents individual communities, and the region as a whole, with a remarkable, unprecedented opportunity to re-envision the future of South Louisiana. This Planning Toolkit was created to provide people engaged in planning and building that future with innovative approaches and techniques designed to ensure the long-term stability and sustainability of communities throughout the region.

The plans developed now for the communities of South Louisiana will shape our future for generations to come. For that reason, it is essential that we view our communities as whole places and our region as a network of inter-related places, and not merely as jurisdictions facing a collection of technical issues to be solved.

Whatever your area of expertise and scope of professional responsibilities, this Planning Toolkit will support you in the planning and rebuilding process and help you understand the relationship between your particular role and the overall challenges and opportunities to rebuild South Louisiana – Safer, Stronger, and Smarter.

A-1 The low-lying land of South Louisiana presents a particular set of challenges to planners working in this region.

Who are the intended users of the Planning Toolkit and how will it benefit them?

Virtually anyone engaged in or interested in the process of planning in South Louisiana will find information of value in this Toolkit. From overall concepts to specific, hands-on approaches, processes, techniques, and models, the Toolkit will be of benefit to its users.

For example:

>> **Community leaders, elected officials and public policymakers** will find information throughout the Toolkit that will be helpful in identifying, clarifying, and framing the issues and the agenda for viable, long-term development in their communities. Tools for Successful Implementation (Section E) identifies various specific tools and techniques that can be used to support proposed initiatives.

>> **Administrators and other professionals** responsible for managing planning processes will find the information in The Planning Process (Section B) to be particularly useful in designing a planning process that is tailored to their particular planning goals and which cultivates public support by engaging citizens in meaningful ways.

>> **Professional planners and technical specialists** will find the Planning Assembly Kit (Section D) to be a useful and succinct presentation of key development-related issues as they pertain to South Louisiana at the various scales of development (from the regional scale across a continuum to the level of the individual lot). That presentation is supported by brief discussions of specific planning approaches and an array of proven analytical and visualization tools and techniques (Section C).

The Gallery of Plans (Section F) shows how these concepts relate to work already underway in South Louisiana. Section F also includes a small selection of plans (at each scale of development) from across the United States, chosen because each presents a particularly innovative approach to solving a difficult problem and/or achieving the community's specified goals and aspirations.

>> **Developers and builders** are most often the ones who actually build what plans lay out. In this Toolkit they will find strategies for creating projects that build community and neighborhood value, as well as making projects marketable to a broader spectrum of the population and a wider variety of tastes by mixing uses and building types. Their projects can be active contributors to a community's economic growth and the developers and builders, themselves, can become more active, dedicated and deliberate participants in ensuring the community's long-term success.

In the history of South Louisiana, planning has never been more critical than it is right now to the future of our individual communities and our region.

>> **Citizens of South Louisiana** will find the Toolkit valuable in understanding the planning efforts underway in their communities and the ways in which they can productively engage in shaping the issues and the goals, objectives, and strategies embodied in those plans.

>> **Members of the media** will find a foundation by which to understand, report, and even critique the planning efforts and specific initiatives proposed or underway in their communities.

Each section of the Toolkit contains a Resources list relevant to the subject matter in that section. These Resources point readers to a variety of publications, web site, organizations, agencies, professional associations, and technical specialists that can provide more in-depth information on the topics covered within the Toolkit.

A-2 Getting citizens engaged in the planning process helps build consensus.

Why plan?

Planning serves a number of important purposes. The first is that planning enables your community to develop a consensus vision for its future and to identify the most desirable paths for achieving that vision.

Planning helps guide growth and development in ways that are consistent with the community's values and aspirations.

Planning helps your community to draw upon its best traditions and heritage as well to remedy – and avoid repeating – the mistakes of the past.

Planning helps direct development to existing areas to optimize the efficiency of existing infrastructure, reduce the costs (financially and environmentally) of creating new infrastructure, preserve natural areas, and sensitive wetlands and provide alternatives to conventional suburban sprawl.

Planning enables communities to build walkable, pedestrian-friendly neighborhoods that create a sense of well-being, belonging, and community spirit.

Planning provides a basis for smart growth. It helps guide development and redevelopment so that they contribute to the physical fabric of a community. A well-written plan provides a basis for codes that address form and function at all scales – from the whole community down to the individual building. This allows communities to ensure that even aesthetically unique projects draw from and contribute to the fabric of their neighborhood and respond to the needs of their community.

Planning provides predictability for developers, land owners and citizens. By providing consistent guidance about where a community wants certain types of uses, planning provides clear information and criteria for proposed developments. This increases the consistency, fairness and speed of the development review process.

Planning brings together technical specialists from discrete disciplines so that they can more fully understand the ramifications of recommendations in their area of specialization on the plan – and the community – as a whole.

Planning provides some assurance to landowners regarding what might be built on neighboring parcels and helps protect against undesirable types of new development.

In the history of South Louisiana, planning has never been more critical than it is right now to the future of our individual communities and our region.
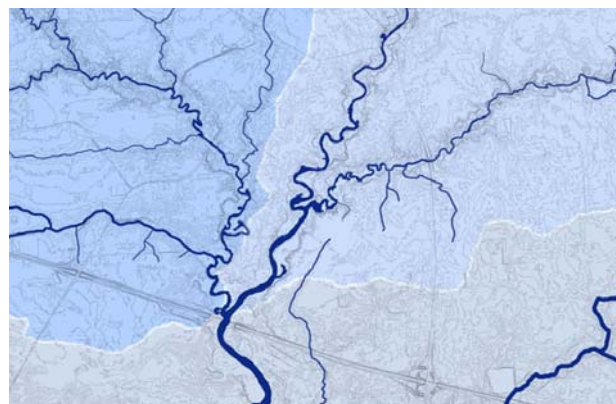
A-3 Analysis drawings, such as this town watershed map, provide a practical basis for planning.

A-4 Plan drawings provide a road map for building the future.

A-5 Eye-level drawings enable everyone to understand the intended results.

What issues can planning help you address?

In the most general terms, planning helps your community decide what form it will take. Will it be compact or spread out? How will you use the land? Will you create discrete residential-only neighborhoods? Separate business districts? Mixed-use, mixed-income neighborhoods? What choices will your community make about preserving the natural landscape? About providing public amenities, neighborhood parks, and recreational opportunities for your citizens?

Do you want citizens to continue to rely predominantly on the use of automobiles? Or do you want to encourage modes of public transportation, bicycle use, and pedestrian-friendly, walkable neighborhoods? Planning helps your community identify opportunities to act responsibly as a steward and consumer of environmental resources. And planning can help you address the complex issues of affordability and accessibility for all citizens.

In more specific terms, how might these issues manifest themselves in your community? Although the possibilities are almost limitless, here are a few of the most common challenges that lead communities to engage in planning efforts:

>> The community is growing, creating a need for more affordable housing.

>> New development proposals create worries about traffic congestion.

>> An institution, such as a college or hospital, needs to expand and the neighbors are upset about the impact on their quality of life.

>> Advocates for public open space convince the community that more parks and natural areas should be provided, but funds are limited.

>> A big box retail use proposed for your community is causing alarm among traditional town center businesses.

>> An historic district is threatened by commercial or industrial expansion.

>> The community's infrastructure is in need of repair, but there is no budget to do the work required.

>> A proposed highway threatens to disrupt a neighborhood.

>> The economic base of your community is in decline and you need new ways of attracting economic development.

>> Your downtown district is declining (or has failed) and you want strategies for bringing Main Street back to life.

>> A neighborhood has declined and its residents want to find ways of revitalizing it and attracting new residents.

>> A crisis or natural disaster creates an unexpected, urgent need for planning.

B-1 At the conclusion of the charrette process, a large public meeting enables the planning team to present the preferred plan and alternatives and to encourage participants to share their responses to these ideas as a basis for further refining them.

RESOURCES

BOOKS

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. (Note especially Part 1: Plans and Plan Making, pps. 3-96)

Calthorpe, Peter, and William Fulton. *The Regional City.* Washington, DC: Island Press, 2001.

Creighton, J.L. I*nvolving Citizens in Community Decision Making: A Guidebook.* Washington, DC: Program for Community Problem Solving, 1994.

Lennertz, Bill, and Aarin Lutzenhiser. *The Charrette Handbook: The Essential Guide for Accelerated, Collaborative Community Planning.* Chicago, IL: American Planning Association, 2006.

Riddick, W.L. *Charrette Processes: A Tool in Urban Planning.* York, PA: George Shumway Publisher, 1971.

Sanoff, Henry. *Community Participation Methods in Design and Planning.* Hoboken, NJ: John Wiley & Sons, Inc.

Susskind, Lawrence, Sarah McKearnan, and Jennifer Thomas-Larmer. *Consensus Building Handbook: A Comprehensive Guide to Reaching Agreement.* Thousand Oaks, CA: Sage Publications, 1999.

Urban Design Associates. *The Urban Design Handbook: Techniques and Working Methods.* New York: W.W. Norton & Company, 2001.

ASSOCIATIONS AND AGENCIES

American Institute of Architects (AIA) – Louisiana
www.aiala.com

American Planning Association (APA) – Louisiana Chapter
www.louisiana-apa.org

American Society of Civil Engineers
www.asce.org/asce.cfm

American Society of Landscape Architects – Louisiana Chapter
www.lcasla.org

Center for Planning Excellence
www.planningexcellence.org

Louisiana Recovery Authority
www.lra.louisiana.gov

Urban Land Institute
www.uli.org

What type of plan best suits your planning needs?

Depending on what you intend to accomplish, you have a variety of plan types from which to choose. These plan types differ not only in what they are designed to achieve, but also in how long they take to complete, how large a geographic area they cover, and how specific they are.

Most planning works best with a multidisciplinary team comprised of some combination of urban planners, architects, landscape architects, engineers, economists, policy experts, environmental scientists, and so forth. Be sure that all the pertinent disciplines are represented appropriately as you assemble your planning team. That said, what follows is an overview of the most frequently used plan types to help you identify the one best suited to your particular planning needs.

LONG-RANGE INTEGRATED PLANS

Long-range integrated plans cover large areas of land and equally stress a number of different elements such as environmental issues, land use and transportation, and economic development. These plans often take more than a year to complete, look decades into the future, and are typically updated every five or ten years. Such plans usually offer generalized locations for investment rather than detailed designs for specific projects.

Comprehensive Plans or Master Plans are a special kind of long-range integrated plan that is defined by state statute. In most states, such plans are called "Comprehensive Plans." In Louisiana, they are called "Master Plans." Parishes or other municipal types that have the power to zone or regulate subdivisions must have a Master Plan and all land-use regulations within the parish or municipality must be consistent with the plan. Louisiana's statute specifically lays out the elements that should be addressed within a Master Plan including land use, housing, transportation, community facilities, utilities, economic development, historic resources, and capital improvements. Typically, the components of the plan are tied to existing funding streams for public investment.

Regional Vision Plans are another special type of long-range integrated plan. The Louisiana Speaks Regional Vision is an example. Such plans take a deliberately broad view of a region to address issues that extend beyond the parish or municipal level in their implications, such as watersheds, wetland restoration, regional transportation, or regional economic systems.

COMMUNITY PLANS

Compared to long-range integrated plans, community plans typically address a smaller geographic scale, have a shorter time horizon, and take less time to prepare. Louisiana Speaks neighborhood planning in Lake Charles, Vermilion Parish, and St. Bernard Parish fits into this category, as does neighborhood planning under the Unified New Orleans Plan. Such plans are much more specific than long-range integrated plans in terms of implementation, so that targeted locations for housing, retail, and other uses would typically be laid out in detail, along with design specifications. These plans tend to focus their attention on highly specific aspects of the community – for example, the revitalization of a given district or anticipated growth along a new road section. They also typically have phased and sometimes budgeted implementation plans.

STRATEGIC PLANS

Strategic plans are, essentially, implementation plans. The implementation section of a long-range integrated plan or a community plan is typically itself a strategic plan, but a strategic plan can also be a standalone effort. Sometimes, strategic plans may be less map-based and more policy-based than other types of planning. Most economic development planning, for example, is strategic planning. Strategic plans usually contain
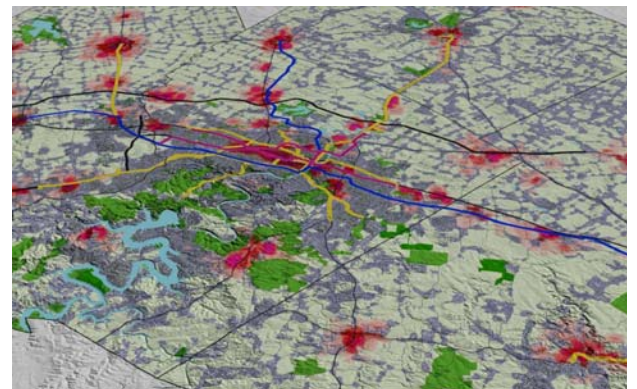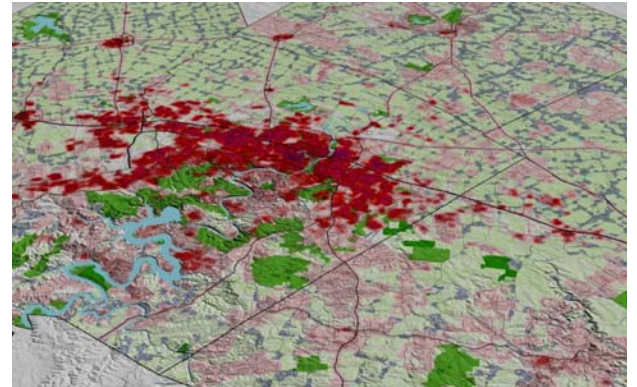
B-2a and 2b Regional vision plans deal with future patterns of land use at a general scale. The top drawing shows the existing pattern of development in a region and the drawing below it shows a future alternative with a series of urban nodes.

B-3 A downtown plan is more detailed and illustrates how new buildings can fit in and contribute to the growth of the city.

phased and sometimes budgeted implementation plans, and – most importantly – they have specific policy recommendations and measurable benchmarks to assess progress. Strategic plans typically take several months to complete.

SPECIAL FOCUS AND INDIVIDUAL DEVELOPMENT PLANS

Most other types of planning have some sort of special focus. A plan might address just housing, for example, or the feasibility of a new transit link. The Louisiana Speaks Parish Recovery Planning effort falls into this category because it was narrowly focused on identifying projects that would jump-start post-Katrina/Rita recovery. This type of plan also includes plans for individual developments whether they are for a single site or a group of sites, single use or mixed use. Typically, these plans develop three-dimensional designs for portions of a community or specific initiatives being funded in the near-term or for which investment is being sought. These designs define the physical form of the project site in a manner consistent with the community's overall vision and plan.

Special-focus and individual development plans can often be done fairly quickly because they do not entail the all-encompassing scope of broader planning efforts. Nevertheless, the same care in engaging the public must be taken.

B-4a and 4b Focused plans can illustrate detailed designs for transforming underused areas into attractive centers.

"I know no safe depositary of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education."

Thomas Jefferson in a letter to William C. Jarvis, 1820.

How can you organize the planning process to gain widespread support?

Encourage public participation. Citizens are the key ingredient of a community planning process. They are both the conscience of the process and its eyes and ears. Urban designers, architects, planners, and landscape architects are the facilitators of the planning process. Their role is to engage the public in an open and collaborative way that will uncover the issues to be dealt with and the aspirations to be supported by the plan.

Even under contentious conditions, a consensus plan can emerge if the participatory process is properly designed and executed and if a broad cross-section of the community is involved from the beginning.

Here is a sequence of steps that has proven to be effective in designing a successful planning process and building broad-based support for the preferred plan that emerges from this type of public process:

>> Identify a leadership group that will provide continuity throughout the process.

>> Identify the primary purpose of the plan and preliminary goals and objectives.

>> Select the individual or team that will facilitate the process.

B-5 As part of many workshop processes, participants break into small groups to identify local strengths and weaknesses, discuss specific issues, and begin to articulate their aspirations and vision for the future of their community.

>> Identify the constituencies to be engaged in the process. These stakeholder groups typically include: citizens; clergy, school, social service and health care providers; major employers and local business persons; city or town staff and agencies; developers, landlords, and real estate brokers; and elected officials.

>> Develop a timeline.

>> Set up the mechanisms for communicating with key participants and with the general public.

>> Publicly announce the process.

>> Gather and analyze all relevant data to inform and support the development of plan concepts.

>> Use focus groups, interviews, surveys, workshops, and public forums, such as charrettes, to elicit stakeholder opinions, concerns, and aspirations.

>> Develop concept alternatives and scenarios and get stakeholder reactions to those potential plans as they are being developed.

>> Refine plans in ways that reflect that input.

>> Select a preferred alternative that becomes the recommended plan.

>> Use a variety of appropriate media to communicate regularly with all concerned.

B-6 A variety of visualization tools, such as this base map, enable participants to explore multiple alternatives for development in their community.

Be diligent in your technical analyses. Parallel with the public process, a technical process should be underway that underpins planning work. Although different scales and types of planning projects will require different types of tools, there is a general procedure that is common to all. This includes collecting, synthesizing, and interpreting data – both hard data on traffic, land use, and so on; and soft data gleaned from citizen input. (See Section C for discussion of specific tools that support the technical process.)

Integrate technical and alternatives analyses into the design and planning process. The summary and synthesis of these base materials and analyses serve as a base for the physical design and planning processes. The alternatives developed and presented as part of the public process provide a basis for discussion and a means to illustrate trade-offs. This use and evaluation of alternatives is an effective way of facilitating balanced discussion of sensitive and controversial issues and contributes to the development of a rational plan for development.

B-7 Plan drawings and a scale model help participants visualize the intentions and possible built results of the plan. These working tools make it possible for the team to show participants how their ideas might translate into a finished outcome.

Design the planning process so that it seeds the implementation process. For example, an advisory or steering group created to guide the planning process can become a part of the implementation process. Including political leaders and agency officials as well as property owners and developers in this advisory group helps ensure that the concepts selected for inclusion in the plan will receive wider support from various stakeholder groups. (See Section E: Tools for Successful Implementation for additional information.)

THREE BASIC PHASES OF PLANNING

No matter the type of plan you are undertaking, the degree of complexity, or the time-frame for completion, planning should take place in three distinct phases:

Phase I: Understanding – figuring out what is going on; arriving at consensus regarding issues to be resolved and strengths and weaknesses of the existing conditions.

Phase II: Exploring – trying out ideas and exploring alternatives.

Phase III: Deciding – choosing what to do and developing the plan.

While each phase consists of numerous steps, the overall three-phase structure is simple and easy to apply. This approach, combined with the public participation techniques described above, provides for the widest range of participation, the greatest opportunities for consensus-building, and the strongest likelihood of success.

B-8 The work of the planners must be presented in a format that can be understood by a wide range of participants.

What planning approaches support sustainable growth and development for your community?

The Louisiana Speaks program calls for "Smarter, Safer, Stronger" planning approaches. It advocates approaches which:

>> Work with the natural environment to provide increased protection from storms.

>> Preserve cultural resources.

>> Enhance a community's ability to attract economic development.

>> Effectively use existing infrastructure.

>> Provide strategies for a sustainable future through more close-knit, walkable development.

>> Respect the land.

There are many planning approaches a community might adopt, but some are particularly oriented towards ensuring that a community's values become embodied in its plans. Here are four such planning approaches that can be used, harmoniously, in conjunction with one another. Each adds in its own way to achieving the goals listed above.

NEW URBANISM

New Urbanism promotes re-establishing compact, walkable neighborhoods, cities, and towns; revitalizing urban centers; conserving regional natural assets; and preserving a community's built legacy. This planning approach adapts the best traditions of the past in ways that satisfy the marketplace demands of the present and the future.

The New Urbanist approach is interdisciplinary, bridging architecture, city planning, urban design, landscape architecture, real estate development, housing and transportation policy, government, environmental protection, and civic activism. New Urbanists employ strategies including neotraditional design, transit-oriented development, and traditional neighborhood development.

New Urbanist principles apply to all scales of development. They can guide how and where metropolitan regions choose to grow, linking transportation and land-use policies and using the neighborhood as the fundamental building block of a region. By applying these principles, communities can create:

>> A well-connected network of streets that disperse traffic, allow for greater choice of routes, ease wayfinding, and support conveniently located transit service.

>> Human-scaled buildings and public spaces that work collectively to create a rich sense of place and invite private investment.

>> A broad mix of housing to accommodate a widely diverse range of incomes and ages.

>> Walkable neighborhoods planned on a quarter-mile radius – a five-minute walk – thus placing neighborhood amenities such as squares, parks, schools, and shops within a short walk of every residence.

>> Opportunities, with proper design, for inclusion of large office, light industrial, and even "big box" retail buildings in walkable neighborhoods.

SMART GROWTH

Smart Growth seeks to shape growth and development patterns by establishing a set of policies governing transportation and land use planning for urban areas. This planning approach aims to preserve the natural environment and enable all residents to benefit from the community's prosperity. Smart Growth emphasizes compact, transit-oriented, walkable, bicycle-friendly, mixed-use developments with a range of housing choices.

RESOURCES

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. (See Part 4: Places and Placemaking; Part 5: Analysis Techniques; and Resources)

NEW URBANISM

Congress for the New Urbanism. *Charter of the New Urbanism.* New York, NY: McGraw-Hill. 2000.

Steuteville, Robert, Philip Langdon, and Special Contributors. *New Urbanism: Comprehensive Report & Best Practices Guide.* Third Edition. Ithaca, New York, NY: New Urban Publications Inc. 2003.

Congress for the New Urbanism www.cnu.org

New Urban News www.newurbannews.com

SMART GROWTH

Szold, Terry S. and Armando Carbonell, eds. *Smart Growth: Form and Consequences.* Lincoln Institute of Land Policy. Order online at www.lincolninst.edu/pubs/pub-detail.asp?id=249

Funders' Network for Smart Growth and Livable Communities www.fundersnetwork.org

Smart Growth America www.smartgrowthamerica.org

Smart Growth Leadership Institute www.smartgrowthamerica.org/sgli.html

Smart Growth Online www.smartgrowth.org

Urban Land Institute www.uli.org

U.S. Environmental Protection Agency epa.gov/smartgrowth/sg_network.htm

SUSTAINABLE DESIGN

Mendler, Sandra F., William Odell, and Mary Ann Lazarus. *The HOK Guidebook to Sustainable Design.* 2nd edition. Hoboken, NJ: John Wiley & Sons, Inc. 2005.

U.S. Department. of Energy Sustainable Design Program www.pnl.gov/doesustainabledesign

Hsin, Robert. *Guidelines and Principles for Sustainable Community Design.* Florida A&M University. 1996 sustainable.state.fl.us/fdi/edesign/news/9607/thesis/thesis.htm

Smart Communities Network www.smartcommunities.ncat.org

Hui, Sam C.M. "Sustainable Architecture." 2002. www.arch.hku.hk/research/BEER/sustain.htm

UNIVERSAL DESIGN

Preiser, Wolfgang F.E. and Elaine Ostroff, eds. *Universal Design Handbook.* New York, NY: McGraw-Hill, 2001.

Clarkson, John, Roger Coleman, Simeon Keates, and Cherie Lebbon, eds. *Inclusive Design: Design for the Whole Population.* London: Springer, 2003.

The Center for Universal Design at NC State University www.design.ncsu.edu/cud

The key tenets of Smart Growth are:

>> Preserving treasured landscapes, agriculture and other rural industries, natural open space, habitat, and cultural resources.

>> Reusing land, protecting water supplies and air quality.

>> Developing transparent, predictable, fair and cost-effective rules for development that also include equitable distribution of the costs and benefits.

>> Concentrating density in the center of a community to increase the efficiency of existing infrastructure, reduce the cost of new infrastructure, and combat sprawl.

>> Building neighborhoods that are safe and attractive, in which houses are affordable and close to jobs, shopping, recreation, and other amenities.

>> Promoting public health and healthy communities by creating transit-oriented development that improves quality of life, encourages a healthier, pedestrian-based lifestyle with fewer hours spent in traffic, and less pollution.

>> Value long-range, regional considerations of sustainability over short-term profits.

C-1 Smart Growth encourages compact development and the protection of agricultural and natural environments.

SUSTAINABLE DESIGN

As a planning approach, Sustainable Design applies the principles of economic, social, and ecological sustainability to the design of buildings and communities at all scales of development. It aims to maintain natural and cultural resources for future generations. Among its primary tenets, Sustainable Design emphasizes:

>> Urban and rural planning that respects the landscape when laying out roads, streets, buildings and other components of the built environment to protect against stream stagnation, soil erosion, flooding, and pollution.

>> Use of Best Management Practices and Low-Impact Design to mitigate stormwater and other development impacts.

>> The use of scientific modeling to illuminate problems before construction and minimize damage to the natural environment.

>> Conservation of energy, water, and resources and the limiting of pollution as

key criteria in the development, operation, and maintenance of buildings.

>> Use of available resources, such as rainwater, solar power, wind turbines, and other alternative energy sources to reduce dependency on fossil fuels and other resources and to increase a building's energy self-sufficiency.

>> Use of recycled and renewable materials as a means of reducing total energy requirements for construction as well as environmental impacts.

>> Agrarian reforms that enhance soil conservation and protect topsoil and wildlife.

C-2 Bioswales, one of many natural ways of dispersing water runoff, contribute to sustainability. They also provide a public amenity for the neighborhood.

UNIVERSAL DESIGN

Universal Design approaches the design of products, services, and environments with the goal that these be usable by people regardless of age, ability, or situation. Universal Design emphasizes broad solutions that serve everyone while minimizing the risk of stigmatizing anyone. Key principles of Universal Design include:

>> Equitable Use – does not disadvantage, stigmatize, or privilege any group or user.

>> Flexibility in Use – accommodates a wide range of individual user preferences and varying functional abilities.

>> Simple and Intuitive – easy to understand regardless of the user's experience, knowledge, language skills or concentration level.

>> Low Physical Effort – can be used efficiently, comfortably and with minimal fatigue.

>> Perceptible Information – communicates all necessary information to all users regardless of ambient conditions or the users' abilities.

>> Tolerance for Error – minimizes hazards and adverse consequences of accidental or unintended actions.

>> Size and Space for Approach and Use – provides appropriate size and space for approach and use regardless of body size, posture or functional abilities.

While existing accessibility laws mandate a minimum level of accessibility, Universal Design advocates for a higher level of access to community resources for a broader population of users. Changing demographics in American communities, especially aging populations, point up the ever-growing need to apply Universal Design principles to planning on a community-wide scale.
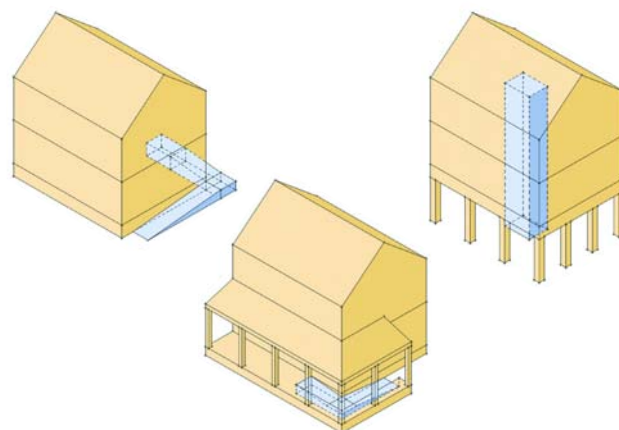
C-3 Accessibility is an important factor in the application of Universal Design principles to residential and commercial buildings. These three techniques provide residential accessibility that complies with FEMA requirements for raising the first floor above the flood plain.

What analytical and planning tools will help clarify the needs, constraints, and opportunities your community faces?

BASE MAPS. Good base maps are especially important because they enable you to understand the physical form of the place you are planning. These may be computer-based Geographic Information Systems (GIS) maps or traditional maps, such as USGS maps and Sanborn maps (See C-4a and C-4b.) Choose the scales that will enable you to understand both the area that is the immediate focus of your plan as well as its relationship to the larger context and smaller scales.

LAYERS. By separating data into layers (C-6a, 6b, 6c, and 6d), you can isolate and examine relationships more easily than you can when all the data are present. Layers are also useful in identifying growth opportunities and constraints because the factors that help determine those things – such as wetlands, storm exposure, existence of adequate infrastructure – can be examined both separately and in combination. GIS is an ideal tool for this.

Using road and utility layers, engineering analyses of key infrastructure systems (C-5a and C-5b) enable you to understand the layout of current systems. You can then test various development alternatives and growth scenarios to determine their impact on those systems and the ways in which they might need to be altered to support a particular possibility. See "Transportation and Infrastructure Analysis" (pp. 30-33) for ways to understand the capacity of these systems and to project the impact of land use changes on them.

CONSTRAINTS ANALYSIS. Constraints analysis (C-7a and C-7b) is a natural next step following base mapping and layering. Constraints analysis enables you to determine the limitations you will either need to accept and live with as part of your plan or for which you will have to find acceptable solutions.
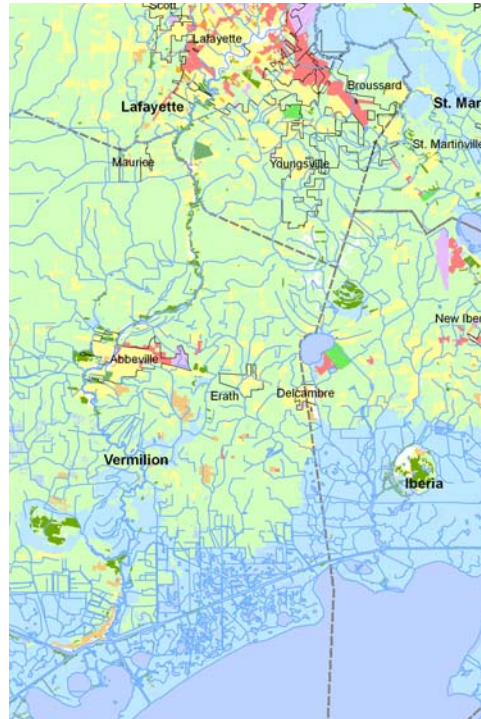
C-4a Parish Land Use
GIS mapping can serve as a base map for large-scale planning efforts.

C-4b Town Land Use
At the more localized scales, such as town centers and neighborhoods, base maps provide additional levels of detail useful in planning. These details include such things as actual building outlines, street curb and sidewalk alignments, and major natural features.

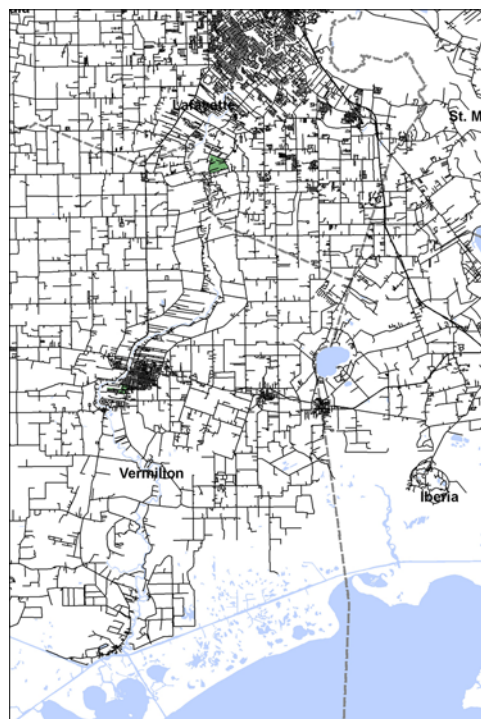**C-5a Parish Roads and C-5b Parish Waterways**
GIS mapping can separate information by layers. As a result, GIS maps enable you to view and analyze systems individually – for example, a road network (C-5a) or a system of waterways (C-5b) – to better understand how the overall system works.
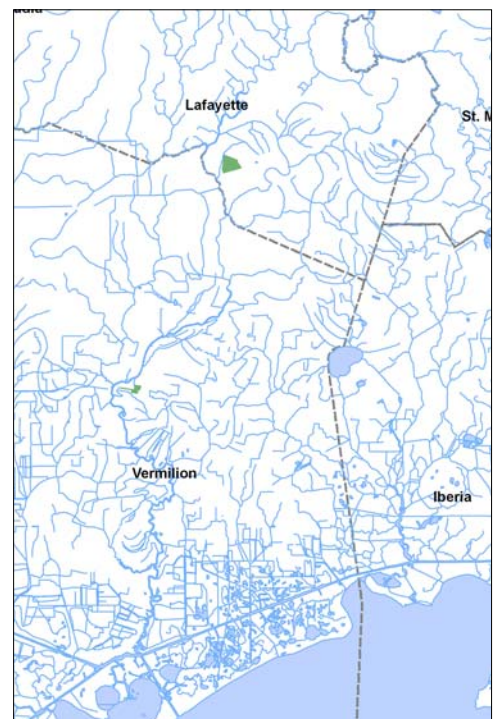

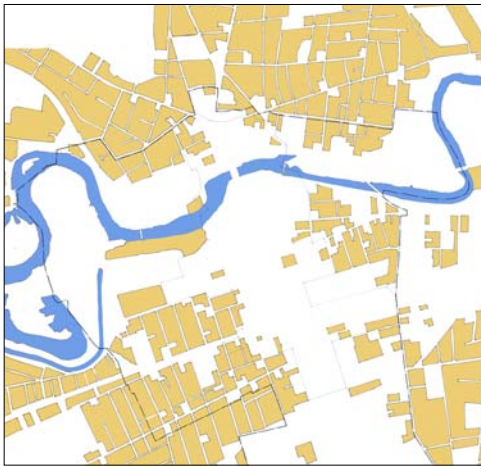**C-4a** Parish Land Use

C-4b Illustrative Base Map

C-5a Parish Roads

C-5b Parish Waterways

C-6a Street Pattern

C-6b Building Pattern


C-6c Residential Areas

C-6d Commercial Land Use Patterns

"Make no small plans. They have no magic to stir man's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical plan once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency."

Daniel Burnham, American architect and urban planner

C-7a Base Map
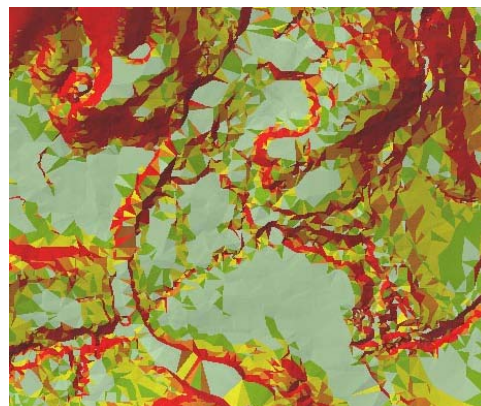
C-7b Constraints Analysis

C-6a, 6b, 6c, and 6d Layer Diagrams (X-rays)
Each of these layer diagrams helps you to isolate, describe, and analyze a single element of the physical environment. Here you can see four examples – a street pattern, building pattern, residential areas pattern, and commercial land use patterns – of how an individual overlay can be useful in helping you understand the existing conditions of a given system, identify its strengths, and diagnose possible weaknesses. Because they are overlays, it is possible to coordinate these images to better understand the relationship between the different elements.

C-7a and 7b Constraints Analysis
Through constraints analysis, you can identify those areas of the land with conditions that will make it difficult or inappropriate to develop. These conditions can include marsh lands, steep slopes, woodlands, streambeds, or specific geological conditions. The base map (C-7a) serves as the basis for creating an overlay (C-7b) in which colors are used to denote the location and extent of different types of constraints. The residual area in green shows you land which can be developed.

11

TRANSPORTATION AND INFRASTRUCTURE ANALYSIS. Transportation and other infrastructure systems are unlike other layers which can be fully understood by simple mapping (for example, topography and parcel structure) because they are not static. Their performance may change based on time of day or by the day of the year. For example, traffic flow on a main thoroughfare will be different at 8:00 a.m. Monday morning than it is at 11:00 p.m. on Thursday night. Infrastructure analyses enable you to determine the capacity of your current systems as well as project what changes your community will have to undertake to accommodate growth and development.

Transportation models provide a picture of existing traffic flows and other key transportation parameters important to consider when planning additions to or changes in the transportation infrastructure. They also enable you to predict how future trends or changes that you are considering as part of your planning process will affect traffic flow or "level of service" on road or street segments and at intersections. In urban settings, intersection capacity tends to be the determining factor in limiting network function; in rural areas, non-intersection links are more important.

Transportation planning allows your community's decision-makers to understand transportation as a dynamic system in which land use changes affect the transportation network and changes to one part of the network affect the rest of it.

ECONOMIC ANALYSIS. The economy is a key aspect of any planning effort. A number of sophisticated and complex methods exist for analyzing economic characteristics at various geographic levels – any of which will help you understand the economic strengths and weaknesses of your community and the region.

Planning is an entrepreneurial endeavor, not a passive task. For that reason, it is essential that proposed changes to the environment or economic fabric of a region have the power to be catalysts for a better future.

Market and Feasibility Analyses. At the community level, these are essential to making wise planning decisions. It is tempting when projecting future market demand (for housing and retail sales, for example) to simply project current market trends forward. But this method alone is flawed because all it can produce is "more of the same."

A better way is to determine "potential demand" – local demand that is not being met locally. Sophisticated databases have made it possible to identify market potential by analyzing the fine-grained lifestyle and purchasing preferences of market area households. These can be further validated and refined through focus groups and, in the case of housing or commercial real estate, through interviews with area real estate experts.

Cost-Benefit Analysis. This type of analysis can help your community determine whether a change will be of benefit or not. Very simply, you divide the benefits of a project by its costs (both amortized over the life of the proposed project). If the result is greater than 1, then the benefits outweigh the costs.

Fiscal Impact Analysis. A form of cost-benefit analysis, fiscal impact analysis answers the question of whether a government (and thus a taxpayer) gains or loses by a particular land-use decision or development. Since most infrastructure costs are a function of linear distance, dispersed development generally costs more than compact development.

RESOURCES, continued

TRANSPORTATION ANALYSIS

Institute of Traffic Engineers. *Trip Generation Handbook, Seventh Ed.* Institute of Transportation Engineers, 2003. Order online at www.item.org/tripgen/trippubs.asp

American Association of State Highway and Transportation Officials. *The AASHTO Green Book: A Policy on Geometric Design of Highways and Streets, Fifth Edition.* AASHTO. 2004. Order online at www.bookmarki.com/AASHTO_Green_Book_A_Policy_on_G eometric_Design_p/1560512636.htm

Highway Capacity Manual, Book & CD-Rom edition. Transportation Research Board, December 2000.

Metropolitan Planning Organizations (MPOs)
MPOs can be a useful resource for transportation models, data, and other transportation-related resources.

Capital Region Planning Commission (Baton Rouge)
www.crpc-la.org

Imperial Calcasieu Regional Planning and Development Commission (Lake Charles)
www.imcal.org

Lafayette City-Parish Consolidated Government
www.lafayettela.gov

New Orleans Regional Planning Commission
www.norpc.org

South Central Planning Development Commission (Houma-Thibodaux)
www.scpdc.org

ECONOMIC ANALYSIS

American FactFinder
factfinder.census.gov

U.S. Department of Labor Bureau of Labor Statistics – workforce data
www.bls.gov

U.S. Census Bureau – demographic data
www.census.gov

U.S. Census' North American Industry Classification System (NAICS) – industry and employment data at parish, state, and national levels
www.census.gov/naics

U.S. Internal Revenue Service – income and tax statistics
www.irs.gov/taxstats

Claritas – proprietary market research products such as PRIZM NE, a geo-demographic segmentation system
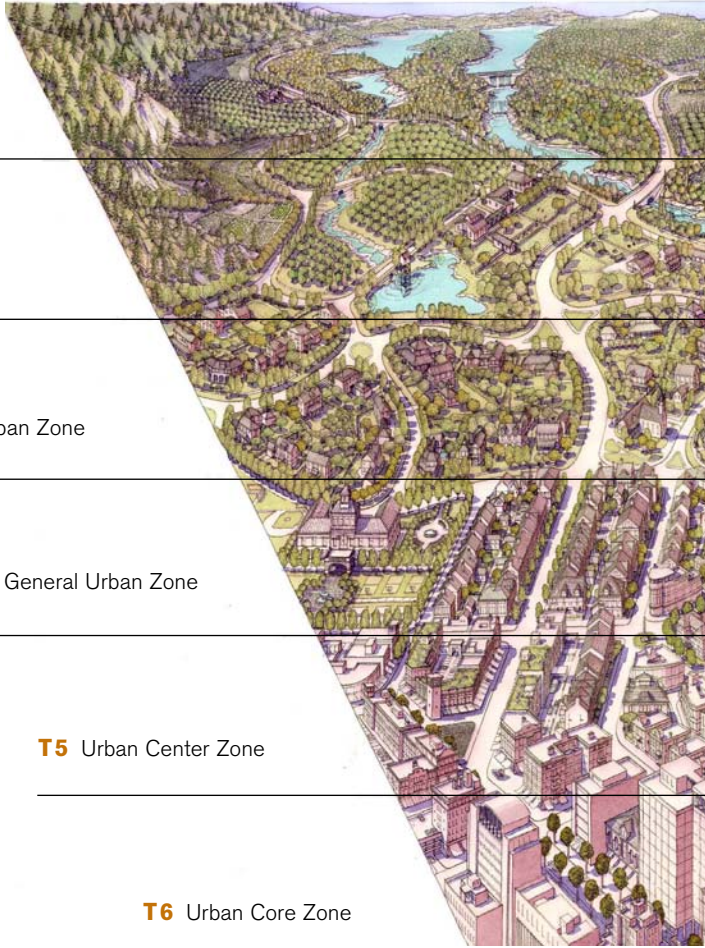www.claritas.com

T1 Natural Zone

T2 Rural Zone

T3 Sub-Urban Zone

T4 General Urban Zone

T5 Urban Center Zone

T6 Urban Core Zone

C-8 The Six Transect Zones

TRANSECT. The Transect is a useful tool in planning because it is a straightforward, easily understood way of planning for and presenting different kinds of developments and landscapes. Visually, by means of six zones (T1 through T6), the Transect depicts a continuum that begins at the natural zone where essentially no development has occurred and proceeds to the most urbanized. At the regional scale, the Transect can be used to define categories of growth potential based on the existing qualities and characteristics of the region as a whole. At the community scale, the Transect zones can become the basis of a SmartCode in which specific regulations apply to each zone. The different scales of development identified in the Transect provide criteria for determining appropriate street cross-sections, building types, building placement, and other forms of guidance.

C-9a T3 Sub-Urban Zone

C-9b T4 General Urban Zone

C-9c T5 Urban Center Zone

C-9d T6 Urban Core Zone

C-8 The Six Transect Zones

T1 Natural Zone. Lands approximating or reverting to wilderness, including lands unsuitable for settlement due to topography, hydrology or vegetation.

T2 Rural Zone. Lands in open or cultivated state or sparsely settled including woodlands, agricultural lands, grasslands, and irrigable deserts.

T3 Sub-Urban Zone. Similar in density to conventional suburban residential areas, but with better street connectivity and some mixed uses. Naturalistic in planting. Blocks may be large and roads irregular to accommodate site conditions.

T4 General Urban Zone. Denser and primarily residential urban fabric with mixed-use usually confined to certain corner locations. Wide range of building types. Setbacks and street tree settings vary. Streets typically define medium-sized blocks.

T5 Urban Center Zone. Main street or equivalent. Includes mixed-use building types that accommodate retail, offices, and dwellings including row houses and apartments. Tight network of streets and blocks with wide sidewalks, steady street planting and buildings set close to the frontages.

T6 Urban Core Zone. Downtown or equivalent. Contains the densest urban setting, the tallest buildings and the greatest variety of uses, particularly unique ones such as financial districts and important civic buildings. The least naturalistic of all the zones. Street trees are formally arranged or non-existent.

C-9a, 9b, 9c, and 9d Illustrative Aerial Perspectives
These aerial perspectives help illustrate the degree of density as well as changes in both lot and building types as one travels through the zones – in this example, from the single-family homes of a sub-urban residential neighborhood (T3) to the most dense forms of mixed-use development in the downtown core (T6).

ALTERNATIVES. The development of alternative concepts allows your community to visualize different futures and to make considered, informed decisions about which option to support. By studying and discussing alternatives, stakeholders have the opportunity to speak to what best serves their interests and resolves their concerns. Alternatives make it possible to raise controversial ideas. As a single proposal, such ideas can become lightning rods, but when presented as alternatives, they can be judged in relationship to one another. The dialogue that occurs in these settings contributes to refining plan possibilities until one emerges as the clear preference.

SCENARIOS. Scenarios are sophisticated, fully modeled alternatives. Scenarios are really stories about what might be. They are neither forecasts nor predictions, rather they are possible futures based on what already exists, trends that are evident, regional or community values and preferences, and decisions that might actually shape future outcomes. A scenario must be plausible within the realm of what exists and what is now known. Typically, several scenarios are built to compare outcomes, learn about forces shaping the future, and find out which strategies work in which scenarios.

The Louisiana Recovery Authority's Louisiana Speaks initiative is using scenarios in its regional planning work. A series of community growth and development scenarios are being developed – pictures of possible futures that show the benefits and trade-offs of different policies. These scenarios allow us to test different kinds of growth and help Louisianians choose the right policies now for long-range development.


C-10a Alternative A: St. Bernard Parish Demonstration Charrette


C-10b Alternative B: St. Bernard Parish Demonstration Charrette

C-10c Alternative C: St. Bernard Parish Demonstration Charrette

C-10a, 10b, and 10c Alternatives
Alternative concepts help communities choose the degree of change they're willing and able to embrace. These three alternatives from the Louisiana Speaks St. Bernard Parish Demonstration Charrette illustrate that point. Alternative A (C-10a), the most conservative, leaves most of the parish's land as is and creates a green belt around the outer perimeter. The greenbelt features retention ponds and lakes which could offer future flood protection. Alternative B (C-10b), a moderate plan, considers the prospect of lower parish population short-term and concentrates development below Patricia Boulevard. This would provide the parish with more green space and larger retention canals. Alternative C (C-10c), the most radical, condenses the majority of development, creating a more urban environment in a shorter amount of time and avoiding the sparsely redeveloped "jack-o-lantern effect" that could dampen property values and community morale.

C-11a and 11b Scenarios
Scenario A (C-11a) shows how the Austin area might look over the next 20 to 40 years if existing trends continue. Most new residents would live in single-family houses in neighborhoods built on previously undeveloped land. Most jobs would be in Travis County. Redevelopment would be very limited. As development spreads outward, people would spend more time commuting. Regional transportation options would include toll roads, new express bus routes, commuter rail and central bus rapid transit systems. Scenario D (C-11b) shows most growth occurring in existing communities. More land would remain undeveloped than in the other scenarios. More than one-third of new households and two-thirds of new jobs would be located on currently developed land. Growth on previously undeveloped land is limited. Each county would experience substantial housing and job growth, but significantly fewer new residents would live in single-family houses. People would spend the least amount of time traveling between destinations. Regional transportation options would include toll roads, extensive commuter rail, light-rail and express bus networks.
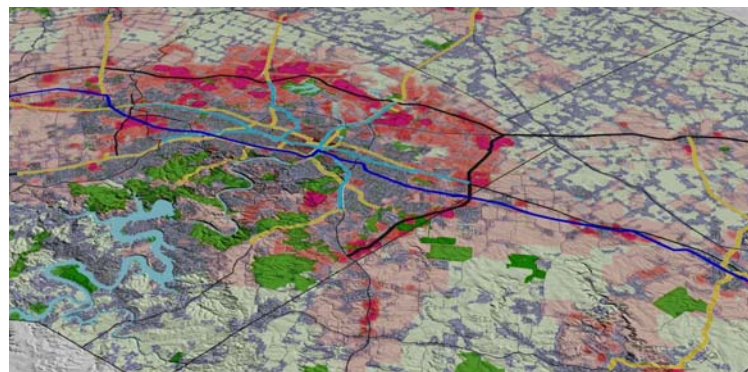
C-11a Scenario A: Envision Central Texas, 2002
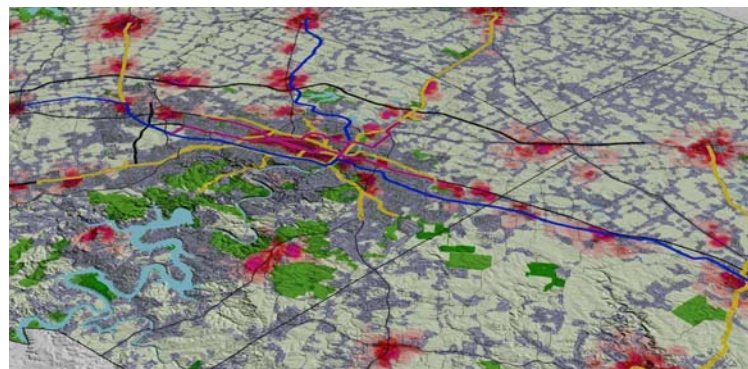
C-11b Scenario D: Envision Central Texas, 2002
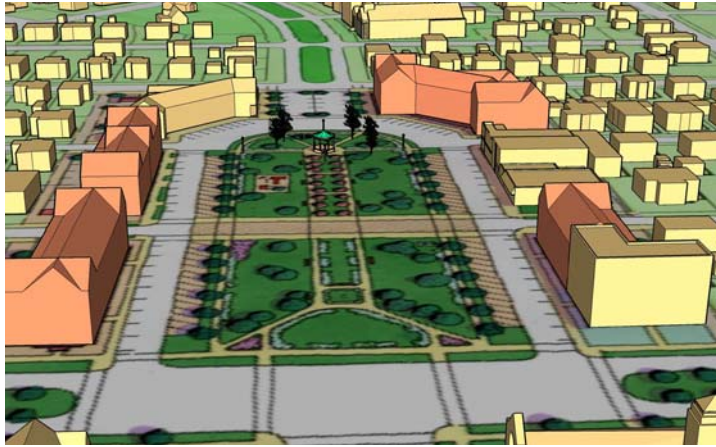
C-12a Digital Model

C-12b Hand-Drawn Portrait

C-13a Existing Conditions

C-13b Proposed Development

What visualization and visual simulation techniques enable planners and stakeholders to see how various concepts might look in built form?

Too often, the possibilities and alternatives are debated in the abstract. Each participant in the process, whether specialist or citizen, is left to visualize the impact on their own, unaided, with no certainty that what each envisions is the same for all. Without a shared vision, there is no basis for real consensus. Photo reconnaissance, digital photo manipulation, traditional drawing, and digital modeling are all tools which make visual the three-dimensional forms that would result from the proposed plans and alternatives.

C-12a and 12b Visualization Possibilities
The digital model (C-12a) provides one way for stakeholders to grasp the outcome of the plan. Digital models can be used to insert proposed development and public space improvements accurately into existing contexts. The hand-drawn portrait (C-12b) takes that one step further to convey the aesthetics, character, and sense of place the plan would create.

C-13a and 13b Visual Simulation
Simulation techniques make it possible to provide photographic representations of the existing conditions and the dramatic changes that can be created when the site is transformed into the finished result. In this example, a wide road with inadequate sidewalks held no appeal for development. By widening the sidewalks and introducing appropriate development along them – as well as a landmark building as a focal point – a convincing case was made for development.

Log onto:
www.doverkohl.com/project_detail_pages/boundary_street_corridor.html to see an animated version of this transformation and experience for yourself the impact that this technique can have on the consensus-building and decision-making process.

PLANNING ASSEMBLY KIT

ISSUES	⮕ SCALE	REGION	CITY AND TOWN	NEIGHBORHOOD
LANDSCAPE AND NATURAL SYSTEMS		CONSERVATION AREAS	DEVELOPMENT RESTRICTIONS	PARKS AND OPEN SPACE
FLOOD, WIND, AND STORMWATER MANAGEMENT		FLOOD AND WIND ZONES		
TRANSPORTATION AND UTILITIES INFRASTRUCTURE		REGIONAL TRANSPORTATION		
SUSTAINABILITY		REGIONAL SUSTAINABILITY		
EQUITY: ACCESSIBILITY AND AFFORDABILITY		REGIONAL CONNECTIVITY		

DEVELOPMENT PATTERNS

REGIONAL LAND USE

RESULTS

REGIONAL PLAN

What is the Planning Assembly Kit?

Neighborhoods, towns, cities, and regions are complex systems that consist of many different elements. The most appealing places are those in which there is harmony among all the elements that create them. Too often, though, each of these elements is designed and maintained by a different person or organization and each is designed according to different criteria. This sort of isolated planning seldom produces good results.

To remedy this, the Planning Assembly Kit presents information and concepts for separate disciplines in the form of a matrix. The matrix is a visual representation of the way in which the information contained in the Planning Assembly Kit is organized. More importantly, however, the matrix will enable you to examine each element separately, while still seeing it in the context of the whole. This is very important because it encourages your community, as you proceed with planning, to continue to take into consideration the effects (both positive and negative) of particular planning decisions regarding one element in the matrix in relationship to all of the other elements in the matrix.

**D-1 The Matrix Structure and D-2 The Matrix Illustrated**
The illustration on this spread (D-1) shows the basic organizational structure of the matrix with the issues arrayed horizontally in the rows and the scales of development arrayed vertically in the columns. The illustration on the next spread (D-2) depicts the entire matrix with key concerns by issue and scale identified in the individual cells of the matrix.
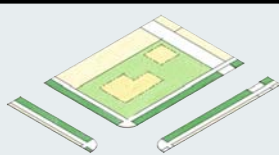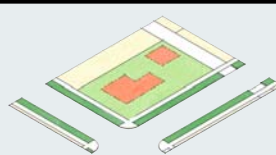
NEIGHBORHOOD LANDSCAPE

LANDSCAPE ZONE

BUILDING PAD

LANDSCAPE PATTERNS

What kinds of information will you find in the Planning Assembly Kit?

The Planning Assembly Kit contains key principles and specific recommendations regarding six important issues your community will need to address when creating a plan. These issues are:

>> **Landscape and Natural Systems.** Includes coastal restoration, wetlands, bayous, and waterways, the agricultural landscape, natural resources, and floodways.

>> **Flood, Wind, and Stormwater Management.** Includes protecting communities from storms and flooding through their location and design as well as through specific measures such as levees, streambeds, drainage canals, and basins.

>> **Transportation and Utilities Infrastructure.** Includes the network of streets, roads, transit, rail, bikeways, and trails that connect people with opportunities and amenities locally and throughout the region.

>> **Sustainability.** Includes long-term economic stability, natural resource and energy conservation, Green Building, and Smart Growth development.

>> **Equity: Accessibility and Affordability.** Includes methods for providing all residents with access to and equitable use of opportunities and services.

>> **Development Patterns.** Presents examples of compact, mixed-use, walkable communities and infill development in currently developed areas which optimize efficient use of existing infrastructure and avoid consuming any more of the natural environment.

The particular questions you will need to answer with respect to each of these issues will vary based on the scale of development. For that reason, the Planning Assembly Kit is organized according to these scales of development:

>> **Region.** Includes general policies for land use and management as well as large-scale patterns, such as waterways and transportation networks.

>> **City and Town.** Includes more detailed techniques for determining the framework of systems and the distribution of uses.

>> **Neighborhood.** Includes detailed, specific patterns for urban elements such as streets, open space, and sites.

>> **Block.** Provides appropriate types of block configurations for different types of uses.

>> **Lot.** Provides techniques for preparing sites and placing structures on them.

Two additional scales of development – Building and Architectural and Landscape Patterns – are addressed in a separate publication, the Louisiana Speaks Pattern Book, available online at: *www.louisianaspeaks.org*
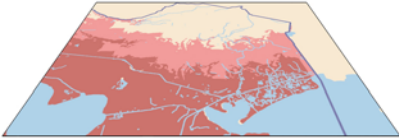
The Matrix Illustrated
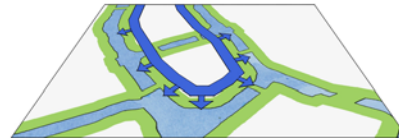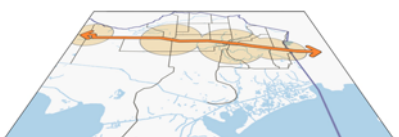
⬇ ISSUES	➡ SCALE	REGION	CITY AND TOWN	NEIGHBORHOOD
LANDSCAPE AND NATURAL SYSTEMS		CONSERVATION AREAS	DEVELOPMENT RESTRICTIONS	PARKS AND OPEN SPACE
FLOOD, WIND, AND STORMWATER MANAGEMENT		FLOOD AND WIND ZONES	DRAINAGE PATTERNS	FLOOD MANAGEMENT
TRANSPORTATION AND UTILITIES INFRASTRUCTURE		REGIONAL TRANSPORTATION	STREET NETWORK	STREET NETWORK
SUSTAINABILITY		REGIONAL SUSTAINABILITY	LOCAL SUSTAINABILITY	GREEN PRINCIPLES
EQUITY: ACCESSIBILITY AND AFFORDABILITY		REGIONAL CONNECTIVITY	PROXIMITY TO SERVICES	SOCIAL INTEGRATION

⬇ DEVELOPMENT PATTERNS	REGION	CITY AND TOWN	NEIGHBORHOOD
	REGIONAL LAND USE	DEVELOPMENT BY BUILDING FORM	RESIDENTIAL FRAMEWORK
		DEVELOPMENT BY USE	COMMERCIAL FRAMEWORK

⬇ ➡ RESULTS	REGION	CITY AND TOWN	NEIGHBORHOOD
	REGIONAL PLAN	LOCAL PLAN	NEIGHBORHOOD PLAN

TOOLKIT

BLOCK	LOT	BUILDING	ARCHITECTURAL AND LANDSCAPE PATTERNS
NEIGHBORHOOD LANDSCAPE	LANDSCAPE ZONE	BUILDING PAD	LANDSCAPE PATTERNS
DRAINAGE TECHNIQUES	DRAINAGE TECHNIQUES	RAISED BUILDING	CONSTRUCTION HARDENING
STREET AND ALLEY DESIGN	VEHICLE ACCESS	PARKING METHOD	ARCHITECTURAL PATTERNS
GREEN PRINCIPLES	SOLAR EXPOSURE	SHADING AND ORIENTATION	GREEN ARCHITECTURE
BLOCK TO BLOCK ACCESS	VISITABLE LOT	ACCESSIBILITY/VISITABILITY	APPLICATION
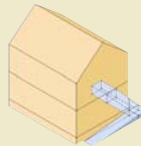
RESIDENTIAL BLOCK PLAN	RESIDENTIAL LOT	MASSING TYPE	ARCHITECTURAL PATTERNS
COMMERCIAL BLOCK PLAN	MIXED-USE LOT		

BLOCK PLAN	LOT PLAN	BUILDING ON SITE	BUILT NEIGHBORHOOD

PATTERN BOOK

Landscape and Natural Systems

THE SITUATION

The Louisiana landscape has long been renowned for its rich natural resources and the culture that developed because of those resources. Abundant waterways that provide access to the country's heartland were the impetus for early settlement. Annual inundations were the source of the land's great fertility. The forests that surrounded these waterways and the coastal marshes that formed as they met the gulf are habitat for diverse and abundant wildlife. The hunting and fishing grounds have provided sustenance for people from Native Americans to generations of subsistence dwellers, recreational hunters and fishermen, to today's million-dollar industry that produces forty percent of the nation's seafood supply.

The cypress swamps throughout the lower part of the state provided timber to build hundreds of elaborate mansions and thousands of more humble dwellings in urban neighborhoods that withstood the humid climate and the passage of time. The discovery in the early 20th century of oil and natural gas deposits created wealth for Louisiana but also began the destructive practice of cutting channels through wetlands.

Suburban expansion in the last quarter of the 20th century cleared vast areas of woodlands, increased runoff, and encouraged development in flood-prone areas. The conversion of small farms to housing or large-scale agriculture increased the amount of chemical runoff. Changes in the world market for agricultural products began threatening the future of traditional crops. As the amount of low-density suburban development increased, more vehicles were on the roads, more fuel was consumed, and air quality worsened.

We now know that even resources that seemed so abundant have finite limits. The recent storms decimated coastal fisheries, wetlands, wildlife habitat, and timberlands in an unprecedented way. Louisianians have known for decades that the levees and channelization of the Mississippi River contributed to the loss of our coastal wetlands and barrier islands. The hurricanes of 2005 made the effects of this loss obvious to the world. This fragile coast is vital for the storm protection and economic viability of much of this region – including New Orleans as well as Houma-Thibodaux, Morgan City, Cameron, and many smaller communities across the coast. Coastal Louisiana has become increasingly vulnerable both because current development patterns often negatively impact the natural environment, and because new development often occurs in flood-prone areas.

SOME SOLUTIONS

The quality of our surface water bodies and groundwater is critically important to the state's economy and the health of its citizens. Critical water bodies and major confluences must be protected and conserved.

Alternative crops and economic roles for agriculture should be explored to maintain the balance of agricultural land to developed areas. Conservation of this resource, so important to the culture of Louisiana, is possible only if there continues to be an economic role for it.

The preservation of trees should be encouraged and limits placed on clear cutting for development. In addition to the natural beauty and shade they provide, trees act as natural pumps and are, therefore, an important contributor in controlling water, reducing flooding and cleansing run-off.

Development patterns must follow the larger scale patterns of the natural systems and must be tested for their impact on both the larger systems and their subsystems, such as watersheds. Ensuring continuity and sustainability of these natural systems must be a guiding principle in developing land and creating and protecting a network of public open space within and throughout communities.

D-3 Louisiana's precious natural heritage includes wetlands and waterways.

Development patterns must follow the larger scale patterns of the natural systems and must be tested for their impact on both the larger systems and their subsystems, such as watersheds. Ensuring continuity and sustainability of these natural systems must be a guiding principle in developing land and creating and protecting a network of public open space within and throughout communities.

D-4 Map showing South Louisiana natural features – wetlands, streambeds, and woodlands.
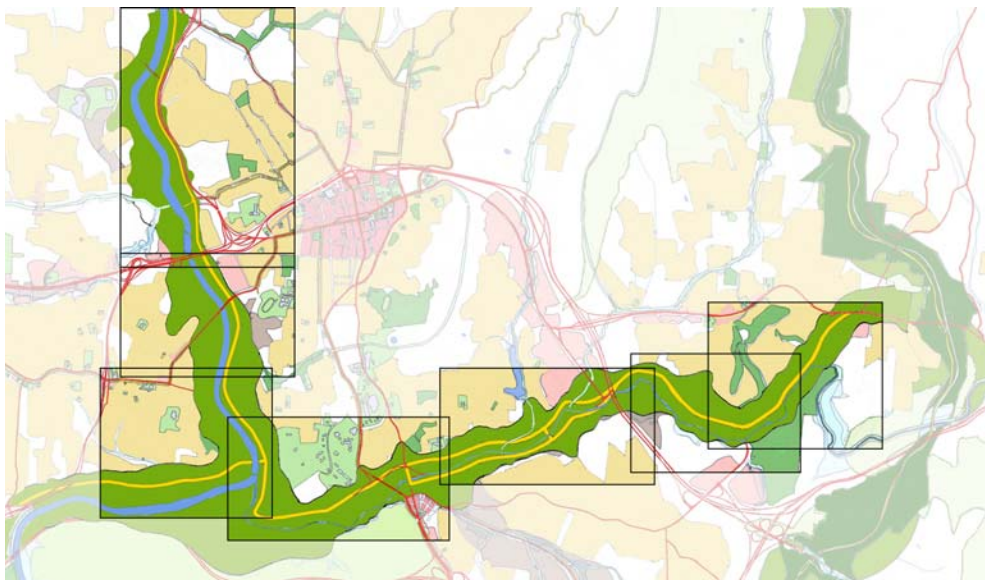
D-5 Asheville, NC: The Wilma Dykeman RiverWay Master Plan. This regional plan shows a riverfront park conceived as a total environment – a continuous roadway and trail system in a linear park setting within the city that preserves natural systems and enhances surrounding areas.
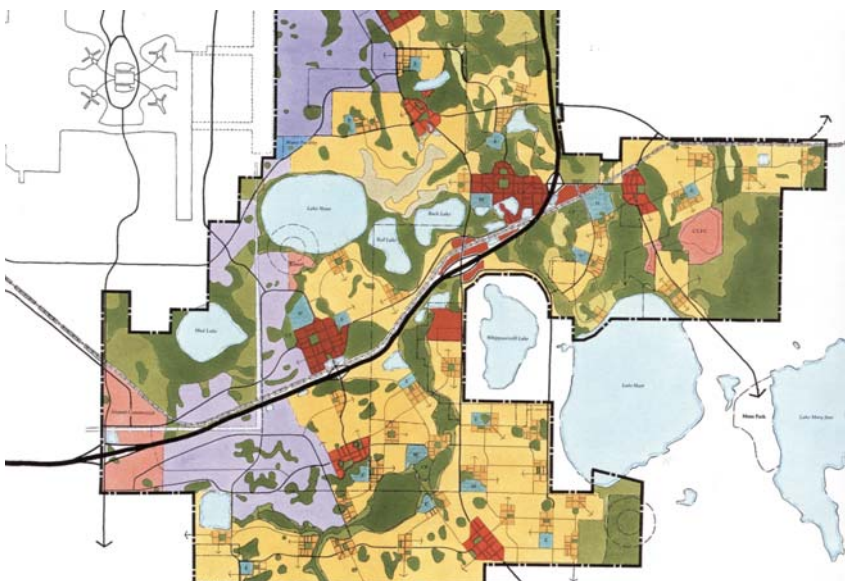
D-6 Orlando, FL: South East Orlando Specific Plan. The Specific Plan established a framework of natural features that defined development rights for this mixed-use development. The natural systems in combination with the circulation network formed the foundation for a series of districts as well as neighborhood, village, and town centers.

REGION

>> Restore and protect coastal areas using the most promising emerging strategies, techniques, and technologies.

>> Base new development on conscious decisions to protect and improve the health of natural and cultural resources so that their survival is ensured for future generations.

>> Ensure that watersheds, wetlands, woodlands, and wildlife protection are conceived and managed at the regional scale. Apply those same principles to local and site-specific decision-making.

>> Use targeted incentives to encourage development in areas that would have the least negative effects on natural resources.

>> Use disincentives to discourage development in scenic or environmentally sensitive areas.

>> Avoid locating regional corridors, such as transit and infrastructure, in highly sensitive ecological and cultural areas.

>> Recognize that sustainable practices are only minimum standards. The goal must be to not only restore and sustain the natural and cultural wealth of the region, but improve it through plans that shift priorities from resource consumption toward resource conservation and use of renewable resources. Consider alternative crops, such as biofuels which can be used for energy.

>> Understand the interdependence of these systems, recognizing that the restoration of one impacts the health of the others.

>> Ensure that restoration of natural systems is based on the natural form of the land and transcends political boundaries.

>> Place sensitive land areas into conservation banks, easements, and other protective covenants. The Trust for Public Land has developed programs that provide the means for protecting sensitive areas through such mechanisms as transfers of development rights and easements.

>> Develop and implement sustainable agricultural practices; develop regional farmers markets. Programs should also include community-based agriculture, organic farming, and new crops such as biofuel products.

CITY AND TOWN

>> Address all systems of the urban plan (infrastructure, drainage, power, cable, open space, wildlife corridors, pedestrian networks, bikeways, mass transit, among others) as comprehensive, connected networks so that alteration to natural systems is minimized.

>> Recognize and take advantage of potential synergies (for example, drainage corridors developed as recreational corridors).

>> Identify parks, squares, and open spaces having high significance to the community over time and provide for their preservation and rehabilitation.

>> Make institutions such as schools, colleges, civic, and religious buildings an integral part of the public open space network.

>> Build a community coalition to support agricultural communities on the urban edge.

>> Develop opportunities for small-scale agriculture and specialty crops using land unsuitable for development near or within urban areas (urban homestead model).

>> Protect agricultural edges by encouraging farming methods that are more compatible with urban areas.

>> Offer incentives and technical assistance for new farmers entering the profession.

>> Reflect the ecological and cultural conditions of the city's or town's location through the design of its public landscape.

>> Emphasize the visibility of hydrologic and drainage patterns when making public works infrastructure repairs or updates so that citizens are aware of the movement of water through their community and the ways in which it is being managed to prevent flooding and pollution.

>> Ensure the health of streambed and bayou edges so that they can accommodate a range of plant materials, respond to changes in water level, and provide amenities such as bikeways and trails.
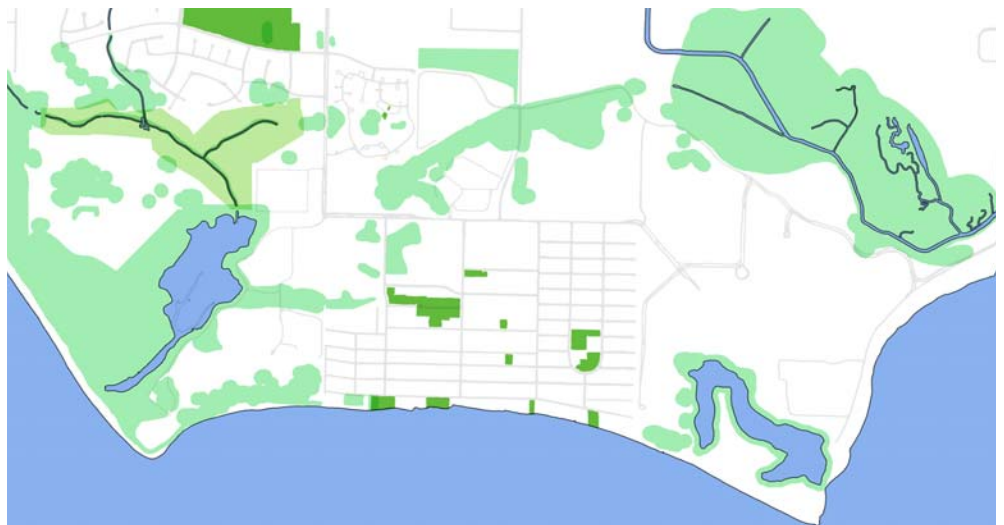
D-7 UCSB, Santa Barbara, CA: Analysis of Goleta Slough and area around campus showing sensitive natural areas.
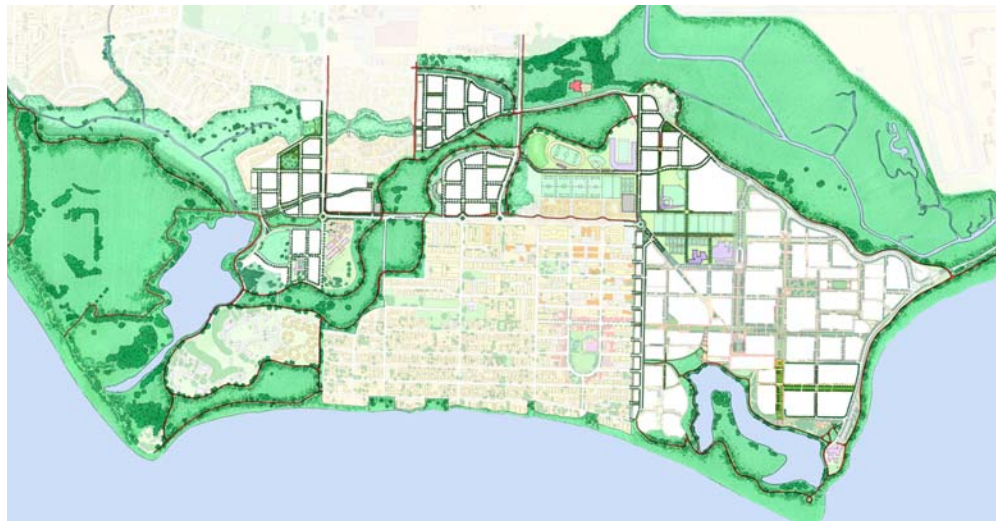
D-8 UCSB, Santa Barbara, CA: Proposed plan for the area around the Goleta Slough which provides protection and definition for sensitive environmental features and uses them as a framework for development.

D-9 UCSB, Santa Barbara, CA: Aerial view of plan for large-scale public open space that links institutions with neighborhoods.

■ Stream & Wetland Landscape
■ Agrarian Landscape
■ Civic Landscape
■ Neighborhood Landscape
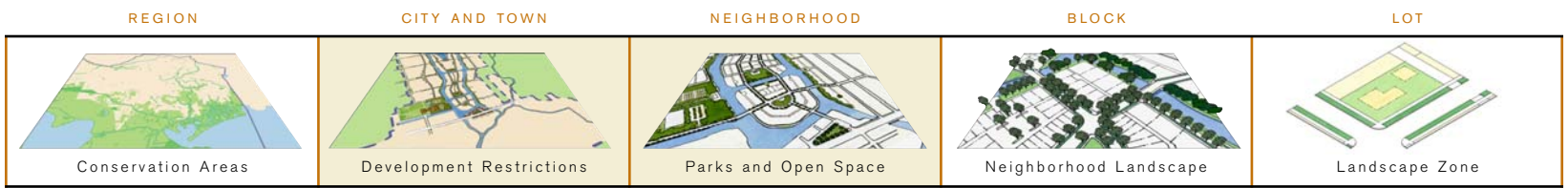
D-10 Richmond, VA: Plan of Roseland's West Park neighborhood showing a diverse range of natural features which create the framework for development areas.

D-11 Pine Mountain, GA: Agricultural uses enliven the new Callaway Gardens residential neighborhood.

D-12 Pine Mountain, GA: Plan view of Callaway Gardens shows how residential uses are oriented around community agricultural gardens.

NEIGHBORHOOD

>> Reinforce the identifiable visual character and sense of place of neighborhoods – the scale at which most South Louisiana citizens establish their sense of geographic identity.

>> Decrease stormwater runoff and improve water quality by designing streetscapes with pervious paving materials, generous tree wells, and bioswales (natural low areas that are allowed to flood in storms).

>> Avoid clearcutting of trees. Require tree inventories prior to development. Plan and enforce tree protection ordinances.

>> Provide for the planting of as many street trees as possible, selecting species that are storm-resistant, deep-rooted, long-lived, broad-canopied, and resilient in an urban context. Retain stands of trees rather than single trees.

>> Develop open space for each neighborhood where residents can gather.

>> Configure the open space network within neighborhoods to interconnect with the larger scale natural systems, creating access for citizens to a wide range of amenities and opportunities.

>> Introduce agricultural land into the community in the form of gardens, both private and communal.

>> Coordinate the open spaces associated with civic and institutional buildings with the overall public space network. This "Nexus" concept is currently proposed for New Orleans, tying in schools and institutional uses with neighborhood open spaces.

D-13 Conceptual drawing of the "Nexus" planning prototype proposed for some New Orleans neighborhoods.

23

BLOCK

>> Build sidewalks to encourage walking and social integration among neighbors.

>> Reduce the amount of paving by favoring block configurations with pedestrian spaces and shared driveways. Use pervious materials, wherever possible, for paved areas.

>> Encourage shared garden plots to enhance citizens' connections with the land, provide a level of self-sufficiency, and create opportunities for community-building.

D-14 Richmond, VA: A small-scale green within a residential block creates an amenity for citizens of the new Roseland neighborhood.

LOT

>> Save clusters of trees located a safe distance from structures in order to create windbreaks.

>> Strive for zero impact on natural systems through best management practices and low-impact development principles.

>> Inventory and evaluate all site features, natural and cultural, before making any decisions about the development of the site, and before altering the site.

>> Follow the site's lead. Study its natural assets and systems (vegetation, drainage, topography) and feature them in the design; protect them during construction.

>> Determine which trees and plants are of value and should be retained; protect these adequately from damage during the construction phase.

>> Locate structures as near street access as possible to reduce the overall paved driveway surface.

D-15 Plant materials on individual sites contribute to the character and quality of the public realm.

>> Develop a grading and drainage plan that retains all increased runoff on-site, using a combination of stormwater best management practices appropriate to the specific situation.

>> Develop a landscape plan that aids in passive solar energy for built structures, reduces runoff, filters stormwater, and adds to diversity for wildlife habitat.

>> Expand the use of outdoor living areas to connect residents with the landscape and their neighbors.

>> Use cultural patterns of "design with climate." Encourage residents to plant recommended shade trees in their yards to amplify neighborhood character and to aid in water absorption and wind protection in storm conditions; plant deciduous trees on the west side of the house for passive solar protection; and encourage cross-ventilation in outdoor living spaces.

D-16 Three-dimensional view of prototype landscape design for a courtyard house.
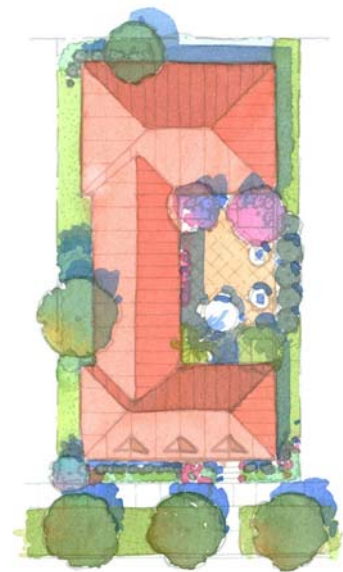
D-17 Plan view of prototype landscape design for a courtyard house.

RESOURCES

Bioremediation

USGS Geological Survey
water.usgs.gov/wid/html/bioremed.html

Conservation Easements

Coastal Plain Conservancy – The Lacassane Prairie Mitigation Bank
www.coastalplain.net/Pt-Lacassane.htm

National Resources Defense Council
See Cities & Green Living page:
www.nrdc.org/cities/default.asp

The Trust for Public Land
www.tpl.org

Dry Well Construction and Maintenance

www.abe.msstate.edu/Tools/csd/NRCS-BMPs/pdf/water/volume/drywell.pdf

The Natural Home Building Source
www.thenaturalhome.com/drywellinstallation.htm

Environmental Management, Parks, and Open Space

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. (See Part 2: Environmental Management, pp. 97-186; Part 3: Structures: Parks and Open Space, pp. 366-383; and Resources, pp. 683-684.)

Birnbaum, Charles A. and Christine Capella Peters, editors. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.* National Park Service (U.S.). 1997.

McHarg, Ian L. *Design with Nature.* Hoboken, NJ: John Wiley & Sons, Inc. Wiley Series in Sustainable Design. New Ed edition. 1995.

Sherer, Paul M. "Why America Needs More City Parks and Open Space." The Trust for Public Land.
www.tpl.org/content_documents/parks_for_people_Jan2004.pdf

Tassel, Sandra. "Conservation by Computer." Reprint from Land & People, Spring 2005.
www.tpl.org/tier3_cd.cfm?content_item_id=19496&folder_id=2987

The Trust for Public Land. *Bibliography: The Economic Benefits of Open Space: How Land Conservation Helps Communities Grow Smart and Protect the Bottom Line.*
www.tpl.org/tier3_cdl.cfm?content_item_id=1076&folder_id=726

The Trust for Public Land. *The Economic Benefits of Parks and Open Space: How Land Conservation Helps Communities Grow Smart and Protect the Bottom Line.*
www.tpl.org/tier3_cdl.cfm?content_item_id=1145&folder_id=727

The Trust for Public Land. *Source Protection Handbook: Using Land Conservation to Protect Drinking Water Supplies.*
www.tpl.org/tier3_cd.cfm?content_item_id=18298&folder_id=175

"Community Mapping and Visioning." The Conservation Fund.
www.conservationfund.org/?article=3030

"Conservation Vision." The Trust for Public Land.
www.tpl.org/tier2_pa.cfm?folder_id=3130

Environmental Restoration

U.S. Department of Energy – Office of Environmental Management
web.em.doe.gov/er

Graywater

Industrial uses of graywater from Shreveport sewage treatment plants
www.ci.shreveport.la.us/mayorpr/pr2001/051001deqpresser.htm

Greenprinting

"Local Greenprinting for Growth." The Trust for Public Land.
www.tpl.org/tier3_cd.cfm?content_item_id=10648&folder_id=175

Hurricane Safety

Abbey, Buck. "Hurricane Resistant Landscapes."
www.hurricane.lsu.edu/abbeypaper.htm

"A Homeowner's Guide for Coastal Landscapes. Hurricane Resistant Landscapes."
www.mfc.state.ms.us/urban/pdf/smrcd.pdf

Low Impact Development

Low Impact Development Center
www.lowimpactdevelopment.org/resources.htm

Porous Pavements

Hun-Dorris, Tara. "Advances in Porous Pavement." Stormwater. The Journal for Surface Water Quality Professionals
www.gradingandexcavation.com/sw_0503_advances.html

Ferguson, Bruce K. *Porous Pavements.* CRC Press. 2005.
www.crcpress.com

Rainwater Collection and Storage

"Preliminary Data Summary of Urban Stormwater Best Management Practices." U.S. Environmental Protection Agency. August, 1999.
www.epa.gov/ost/stormwater

Sewage Treatment

"City of Hammond sewage treatment facility uses wastewater to boost wetland health as part of the state and national strategy for rebuilding the Louisiana coastline." The Advocate, Feb 13, 2006, Sec. 1, p.1.

Sustainable Agriculture, Rural Land Preservation, and Farmers Markets

The American Farmland Trust
www.farmland.org/default.asp

Sustainable Agriculture Education
www.sagecenter.org

Urban Forestry

Urban Forestry South
www.urbanforestrysouth.org

Urban Runoff/Best Management Practices

Stormwater Best Management Practices Bibliography.
Metropolitan Council
www.metrocouncil.org/Environment/Watershed/bmp/ApD_Source List.pdf

Wetlands, Oceans, and Watersheds

U.S. Environmental Protection Agency
www.epa.gov/owow

Flood, Wind, and Stormwater Management

More than 90 percent of residents surveyed as part of the Louisiana Speaks Regional Vision process support coastal and wetland restoration as a preferred method of flood control and protection. More than 75 percent believe that levees, rebuilt at a Category 3-plus level, will not be safe enough.

Identifying the pattern of wind zones and flood plains should be the first step in any planning or development effort. There are zones that should not be developed and those that have limits on their development capacity (per FEMA Technical Fact Sheet No. 1 – Coastal Building Successes and Failures).

Together, natural and manmade storm protection systems, along with the identified zones based on potential storm impacts, define and limit the areas within which development can safely be sustained. Within that framework, specific measures can be taken to mitigate conditions and support the restoration process.

Mitigation can be collective or individual. Collective mitigation includes levees, wetlands that protect entire neighborhoods, and raising blocks above streets. Collective measures are preferable because they address the need across a broader base and reduce the possibility that individual site measures could create problems on adjacent properties. Individual measures are implemented at the lot and building scales and include measures such as elevating buildings on piers above flood levels. New technologies being developed include flotable foundations that remain at ground level but can float as floodwaters rise.

D-18 Erath after the flood.

FLOOD AND STORMWATER PROTECTION

Flooding of property can occur from several different events, each requiring specific protection and mitigation measures. Major thunderstorms can cause drainage systems to reach capacity, backflooding streams, gutters, and canals; stream banks can overtop. While the levee system along the Mississippi River is designed to protect Louisiana from flooding by flows from upriver cities and states, this is best addressed with naturalized drainage systems that can accommodate large amounts of rainfall and by building on piers above flood levels. Intense hurricane rainfall can also cause flooding to occur, but the greatest hurricane flooding danger is from storm surges where the winds push water from the Gulf of Mexico up through rivers, creeks, and channels flooding the land and overtopping levees. Coastal wetlands provide the best protection from this by dissipating the energy and diminishing surge water. Levees and floodwalls are the second line of defense. Flooding also occurs when manmade levees fail. With much of South Louisiana below sea level, that can be a devastating event. Levees must be adequately constructed (in depth and height) and well maintained. They can be "leaky levees" which allow water to flow out from behind a levee if it is overtopped or sections fail, but do not allow water to enter a protected area.

A coordinated, region-wide planning effort is imperative for devising and implementing strategies for restoring the coast and protecting Louisiana from future devastation. Understanding and mimicking the natural systems which, in the past, provided protection are essential to creating greater ongoing safety. The designation of wetlands, the location of levees, and all modifications to water drainage patterns must be studied not only for their regional form and impact but also for their specific local effects.

WIND PROTECTION

The Louisiana coast has been divided into several velocity zones which start with a 150 mph wind zone at the extreme southeastern coast and decrease in 10 mph increments moving northward. A chart in the International Residential Code (IRC) identifies these zones. The IRC was adopted by the State legislature in 2005. Compliance with the IRC is mandatory throughout the State. Provisions of the IRC supercede any code provisions for the same parameters.

More than 90 percent of residents surveyed during the Louisiana Speaks Regional Vision Process support coastal and wetland restoration as a preferred method of flood control and protection. The patterns of natural and manmade storm protection systems define and limit the areas within which development can safely be sustained. That framework should be the primary determinant in making land use and physical planning decisions.

D-19 Levee alongside the Mississippi River below Baton Rouge.

D-20 Wind Zone Map of Louisiana. Wind speeds decrease from the highest velocity zone shown in dark blue.
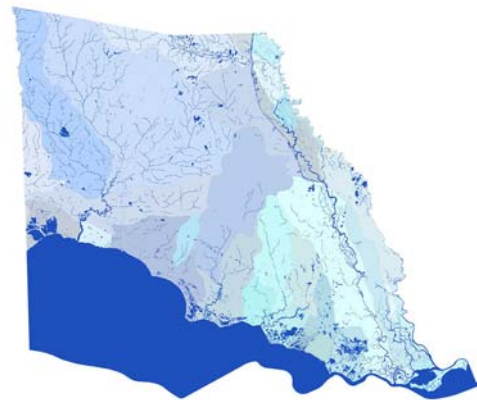
D-21 St. Tammany Parish, LA: Regional drainage patterns. Darker tones indicate areas most subject to flooding.

REGION

>> Use coastal wetland restoration as the primary means of flood and stormwater protection.

>> Manage watersheds as environmental units (and not on the basis of municipal boundaries) because drainage takes place in watersheds independent of these political boundaries.

>> Give careful consideration to levee placement and the impact on adjacent areas. Levees as a flood protection mechanism can include "leaky levees" (which have a controlled means of permitting water through).

>> Discourage development in wetlands behind levees, even though current laws permit this if mitigation is provided elsewhere.

>> Because flood, wind, and storm surge management is a dynamic issue, consult the LSU Hurricane Center for current information and best practices.

D-22 St. Bernard Parish: High ground is indicated in lighter tones; areas subject to flooding in darker tones.

D-23 St. Bernard Parish: Proposed plan of parks and natural conservation areas, some of which can be allowed to flood.

D-24 Typical concrete-lined channel with pipe outfall creates an ugly landscape, degrades water quality, and misses the opportunity to create a multiple-use corridor.
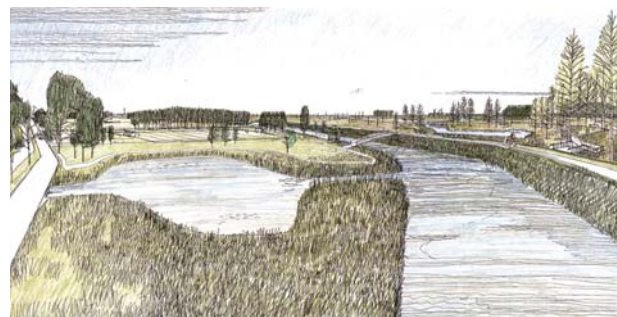
D-25 St. Bernard Parish: Proposed view of wetlands and green space along the 40 Arpent Canal and Florida Avenue demonstrates a natural alternative to concrete-lined channels as a means of water management.

CITY AND TOWN

>> Build in concentrated areas on ridges, natural levees, and high ground.

>> Provide funding to improve drainage systems.

>> Locate parks and other public areas where they can provide dual/multiple use for recreation, flood and stormwater management, wetlands, and wildlife habitats.

>> Permit some streets, as well as parking lots, golf courses, and parks to flood when necessary.

>> Define areas for development based on natural protection.

>> Permit water to flow downhill.

>> Let swamps be swamps and bayous be bayous.

>> Provide citywide wetland mitigation and stormwater management at the confluence of critical rivers and streams by conserving the land, protecting habitats, and providing public open space.

NEIGHBORHOOD

>> Build in concentrated areas on ridges, natural levees, and high ground, leaving naturally flood-prone areas to flood.

>> Restore streambeds and bayous to create a natural drainage way for stormwater.

>> Consider developing a continuous network of public open space with trails and bikeways along streambeds.

>> Provide parks and spaces that can be flooded.

>> Create developable land above the flood plain using proven construction techniques adapted to site-specific soil conditions. (See the Erath section of the Vermilion Parish Demonstration Charrette for an example of this.) This approach to creating developable land requires achieving optimum moisture levels as determined by a proctor test, providing adequate compaction, and preventing shrinkage and settlement to ensure stability.

D-26 Plan view of proposed new Earth neighborhood showing canals and raised land which provide flood and stormwater protection.

D-27 Natural stream corridor accommodates water in streambed and flooding in flood plain. Vegetation in the flood plain and along the banks cleanses runoff while providing public open space for recreation and pedestrian connections through neighborhoods.

D-28 Drainage way in St. Bernard Parish.

D-29 Canal treatment in Holland.

BLOCK

>> Use streamwater best management practices and minimize areas of impervious surfaces in the design of drives, pathways, alleys, and other hard surface areas.

>> Provide on-site drainage.

>> Respect drainage patterns within blocks by using or mimicking natural drainage patterns and methods.

>> Coordinate what is done at the block level with the larger scale patterns to which they connect.

>> Use appropriate plant materials in the public areas of the block to better control water run-off.

>> Recognize that trees serve as pumps and play an important role in water management.
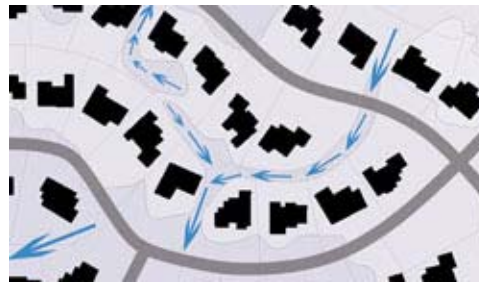
D-30 Watershed patterns within a block.
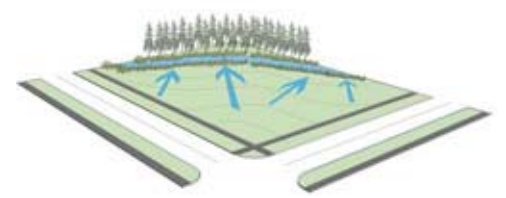
D-31 Watershed patterns on a lot.

LOT AND BUILDING

>> Identify the wind velocity zone for your site by consulting the appropriate code: residential (IRC) or commercial (ICC). All other components of the code are applied based on that zone designation.

>> Build structures above flood levels. FEMA maintains Base Flood Elevations (BFEs), federally mandated standards that set minimum elevations above mean sea level for finished floors, based on 100-year flood levels. BFEs apply to any structure in designated flood plains participating in the National Flood Insurance Program (NFIP), including any structure with a mortgage. Existing structures with floors below the BFE may be grandfathered and still participate in NFIP. Visit FEMA at www.fema.gov and local authorities for site-specific requirements.
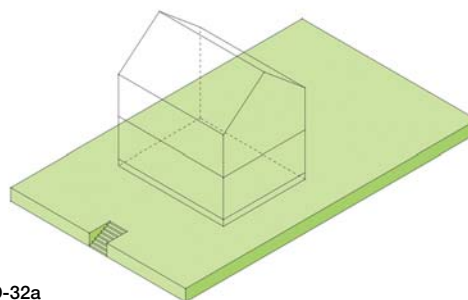
D-32a
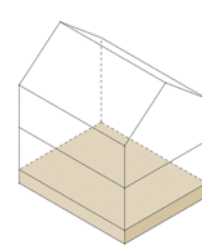
D-32b
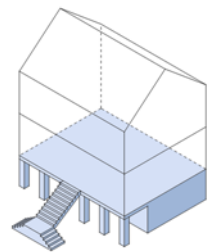
D-32c

D-32a, 32b, and 32c Three basic strategies for raising buildings on lots. Raising the site with fill (left). Using a base to raise the floor elevation (middle). Raising the building on piers, incorporating a sub-story with a grand stair (right).
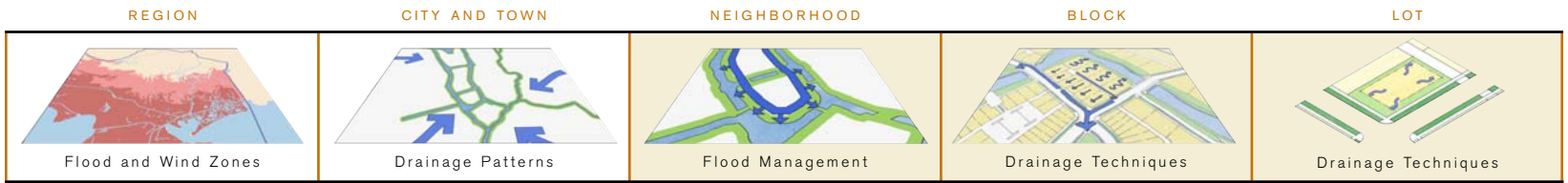
RESOURCES

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. (Note especially Part 2: Environmental Management, pp. 107-182; and Resources, pp. 675-679.

"Coastal Building Successes and Failures." Home Builder's Guide to Coastal Construction, FEMA 499/August 2005. Technical Fact Sheet Nos. 1 through 31. www.fema.gov/rebuild/mat/mat_fema499.shtm

FLOOD AND STORMWATER MANAGEMENT

Elements of a Stormwater Management Plan
www.floods.org/TheOrganization/stormpln.asp

The Management of Water
www.ec.gc.ca/water/en/manage/e_manag.htm

Reducing flood damage – Stormwater management
www.ec.gc.ca/water/en/manage/floodgen/e_mngt.htm

WIND PROTECTION

Standard for Hurricane Resistant Construction (SSTD-10). Southern Building Code Congress International (ICC, formerly SBCCI).

The Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings, 2001 edition. American Forest and Paper Association. An ANSI approved document. Can be ordered online at www.awc.org/Standards/wfcm.html

ASSOCIATIONS, AGENCIES, AND ACADEMIC CENTERS

American Society of Civil Engineers (ASCE)
www.asce.org

Association of State Flood Plain Managers (ASFM)
www.floods.org

Federal Emergency Management Agency (FEMA)
www.fema.gov

Louisiana State University (LSU) Hurricane Center
www.hurricane.lsu.edu

National Association of Flood & Stormwater Management Agencies (NAFSMA)
www.nafsma.org

United States Environmental Protection Agency
www.epa.gov/ebtpages/water.html
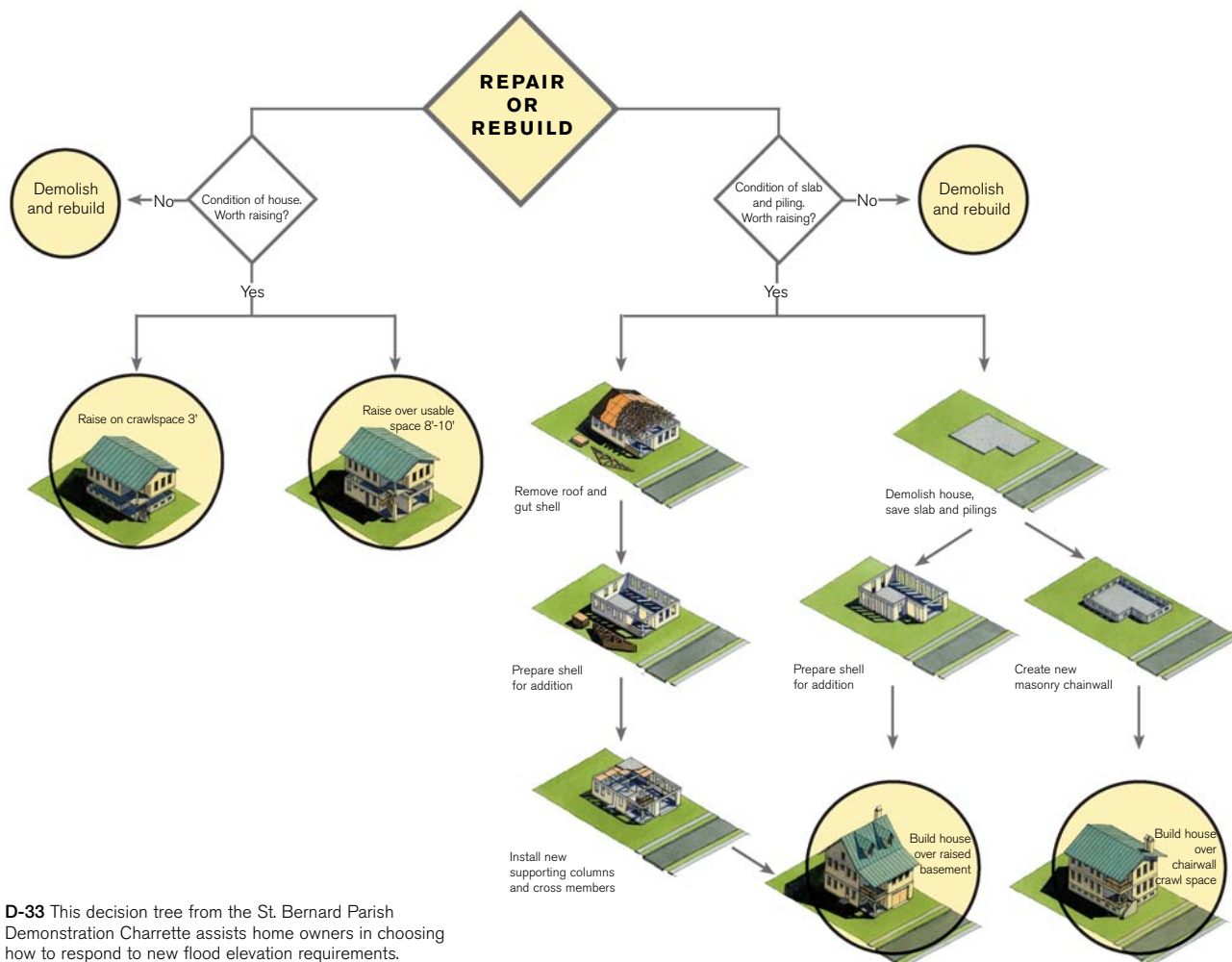
D-33 This decision tree from the St. Bernard Parish Demonstration Charrette assists home owners in choosing how to respond to new flood elevation requirements.

Transportation and Utilities Infrastructure

Existing transportation and utilities infrastructure support current development and should be used to help determine efficient locations for future development based on where the system has unused capacity.

OVERALL TRANSPORTATION NETWORK

The transportation network should be configured to support compact, mixed-use developments, reinforce existing developed areas, and encourage alternative means of transportation to provide people with transportation choices. The network should be considered as a whole – not just highways and roads. Rail, street networks, bikeways, trails, and waterways should be integrated into the planning process. Existing rail lines in Louisiana, some of which are underutilized, could be revived as transportation corridors for rail, bike, or pedestrians.

Outside of older urban areas, the existing road network in South Louisiana is often poorly interconnected, forcing drivers onto overcrowded main roads. As growth happens, the system should be improved strategically. New road connections should be built to create a more fully interconnected network, improvements should be constructed to alleviate bottlenecks, and, where necessary, narrow roads should be thoughtfully expanded. Vehicular capacity should be only one concern. Streets are also part of the public realm. They are the public interface to new and existing developments and they are a means of transportation for bicyclists and pedestrians. Also, opportunities to establish or enhance transit (bus, streetcar, or rail) in tandem with other improvements should be explored.

STREET NETWORKS

City and town-scale streets should be interconnected to provide the most options for navigating within the community. It is most efficient to have many connected, two-lane streets that serve local traffic and feed onto larger streets. That way, peak traffic can flow on larger streets without local traffic needlessly congesting them. The more lanes there are on large streets, the more signalization is required, reducing the capacity of every lane.

Speed of traffic should not be confused with capacity. Streets with a speed of 25-30 miles per hour are capable of carrying the most cars per lane. At faster speeds, cars require more distance between them, which actually reduces capacity.

Each neighborhood street pattern should be connected to the larger community's interconnected street network. The grid pattern is ideal in that it connects every address to every other address. It is the best way to build larger scale community cohesiveness (as opposed to the insulated neighborhoods with cul-de-sac patterns).

For the past 50 years, state and national standards for street cross-sections have been established primarily on the basis of moving vehicles with maximum efficiency. In recent years, the planning and engineering professions have begun to recognize and elevate in importance the other functions of streets, including creating an environment that accommodates bikes and pedestrians and supports economic and social activity along their routes. For example, the physical dimensions of a local neighborhood street that handles less than 500 cars per day should be much narrower than one that carries through-traffic. The design and dimensions of these streets should provide safe, pleasant pedestrian routes, with crosswalks that give visual and functional priority to pedestrians.

UTILITIES INFRASTRUCTURE

Utilities infrastructure is costly to expand and, in South Louisiana, much of it is in need of repair. Land use policies should encourage new development within or directly adjacent to existing urbanized areas with infrastructure so that available funds can be used to improve and maintain existing systems, rather than to construct costly new ones.

D-34 To be appropriate for the area they serve, street designs should respond to their context. Above, the street types respond to different transect zones.
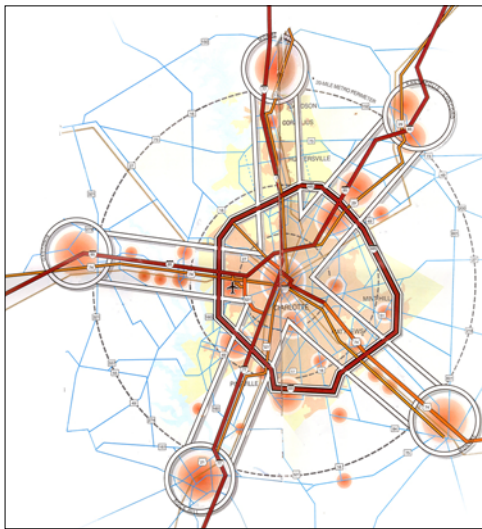
D-35 Charlotte, NC: New regional rapid transit system.
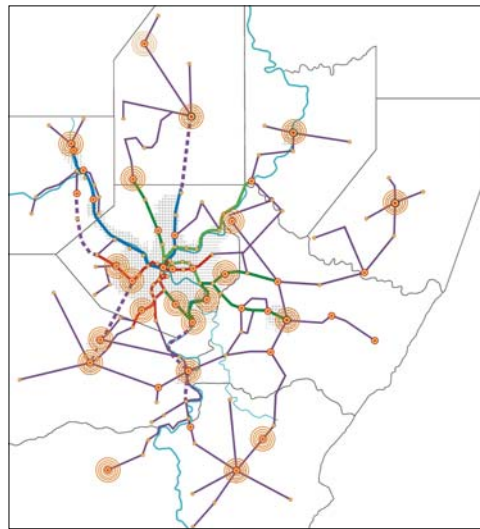
D-36 Southwestern Pennsylvania: Regional transit and transportation system.

REGION

>> Provide a range of primary and alternate routes of different scales, as well as road and street types, within the regional road network.

>> Consider using underutilized and/or abandoned rail lines as alternatives for freight and also for passenger travel to reduce dependence on automobiles.

>> Develop a regional system of trails and bikeways that take advantage of the extraordinary natural features of South Louisiana and provide an alternative means of transportation, as well as recreational amenities, for citizens.

>> Use the full range of cross-sections of streets and roads and select the cross-section that is appropriate for the scale of use it serves and the quality of the environment through which it passes.

CITY AND TOWN

>> Use the network of streets to determine potential land use patterns.

>> Create an interconnected network of streets with a range of street dimensions, capacities, and speeds of vehicular traffic.

>> Relate the hierarchy of streets to the intensity and density of surrounding uses.

>> Optimize travel on primary arterials through the community and provide a system that offers alternate routes.

>> Consider capacity over speed when designing the street network.

>> Give pedestrians, cyclists, and vehicles equal importance in street design.

>> Design all streets to support walkable communities, slowing traffic to enable the pedestrian circulation to be safe and enjoyable.

D-37 Street designs should respond to their contexts. Here, transect zones provide guidance.

NEIGHBORHOOD

>> Use street types that are appropriate to the area's types of use and extent of use, such as thoroughfares, boulevards, commercial streets, neighborhood streets, and lanes, ways, and alleys.

>> Include a range of streets from large capacity through-streets to small-scale neighborhood streets depending on the intensity and density of surrounding uses.

>> Define dimensions of each street type.

>> Ensure that people can easily walk from their place of residence to a range of uses by using the 5-minute-walk radius as a means of defining development areas within the neighborhood.

>> Use traffic-calming street designs to slow traffic and protect pedestrians without decreasing traffic capacity.

D-38a Minneapolis, MN: Near North neighborhood before new development.

D-38b Minneapolis, MN: Near North neighborhood with new network of streets and public open space.

D-39a Existing conditions

D-39b Proposed traffic-calming devices
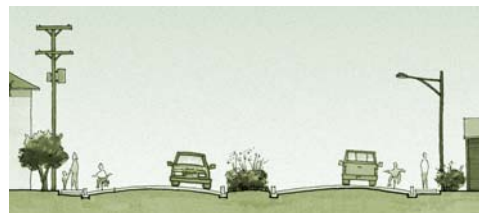
D-39c Existing conditions cross-section

D-39d Proposed traffic-calming devices cross-section

D-39a, 39b, 39c, and 39d Norfolk, VA: A four-lane former highway is transformed into a residential boulevard with special treatment at crosswalks and planting areas that define on-street parking.

BLOCK

>> Preserve the maximum amount of street frontage for active building facades which contribute to the safety and activity of the street.

>> Give the option of block types which provide access and servicing in the center to support rear-loaded lots.

>> Minimize curb cuts on front-loaded blocks.

LOT

>> Configure vehicular access on front-loaded lots in ways that screen service and parking uses as much as possible.
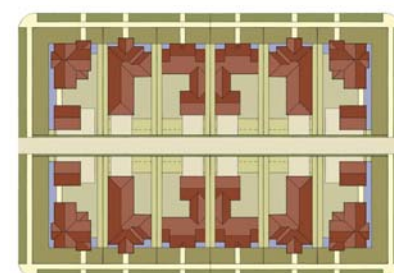
D-40 Block with an alley for servicing.
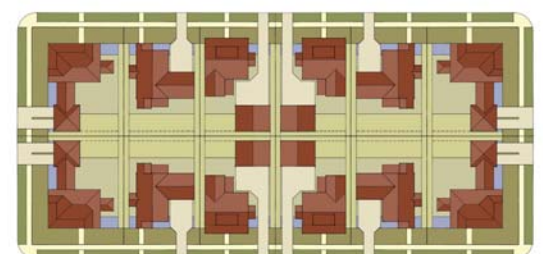
D-41 Front-loaded block with appropriate design.

RESOURCES

TRANSPORTATION

Books and Articles

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. (See Part 1: Transportation Plans, pp. 27-29; Community Facilities Plans, pp. 36-37; Part 3: Structures: Transportation, pp. 219-299; and Resources, p. 671 and 679-684.)

Online Transportation Demand Management (TDM) Encyclopedia. Victoria Transport Policy Institute. Updated June 2006. www.vtpi.org/tdm

Performance Measures for Context-Sensitive Solutions: A Guidebook for State DOTs. National Cooperative Highway Research Program. October 2004. Available online at onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w69.pdf

"Balancing Street Space for Pedestrians and Vehicles." Adapted from Designing Effective Pedestrian Improvements in Business Districts, published by Project for Public Spaces, Inc. www.pps.org/transportation/info/trans_articles/balancing_peds_and_vehicles

"Convertible Roadways and Lanes." Transportation Research Board's National Cooperative Highway Research Program (NCHRP)
trb.org/news/blurb_detail.asp?id=4660

"FHWA and Context Sensitive Solutions (CSS)."
www.fhwa.dot.gov/csd/index.cfm

"Going Places: 21 great places that show how transportation can enliven a community."
www.pps.org/transportation/info/trans_articles/great_transportation_places

"How to Get to Complete Streets."
www.completestreets.org/howtogetto.html

"Lessons from Paris." Project for Public Spaces, Inc.
www.pps.org/transportation/info/trans_articles/paris#

"Traffic Calming 101."
www.pps.org/transportation/info/trans_articles/livememtraffic

"Transit-Friendly Streets." Adapted from Transit-Friendly Streets: Design and Traffic Management Strategies to Support Livable Communities, published by Project for Public Spaces.
www.pps.org/transportation/info/trans_articles/transit_friendly_sts

Associations and Agencies

American Association of State Highway and Transportation Officials (AASHTO)
www.transportation.org

American Public Transportation Association (APTA)
www.apta.com

Context Sensitive Solutions.org
www.contextsensitivesolutions.org

Federal Highway Administration
www.fhwa.dot.gov

Federal Transit Administration
www.fta.dot.gov

Institute of Transportation Engineers (item)
www.item.org

National Association of City Transportation Officials (NACTO)
www.nacto.org

National Center for Bicycling & Walking
www.bikewalk.org

Surface Transportation Policy Project
www.transact.org

Thunderhead Alliance
www.thunderheadalliance.org

INFRASTRUCTURE

Books, Articles, and Journals

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. (See Part 3: Structures: Utilities, pp. 300-358; and Resources, pp. 679-684.)

Planning for Decontamination Wastewater: A Guide for Utilities. National Association of Cleanwater Agencies (NACWA). Available in downloadable form at www.epa.gov/nhsrc/pubs/reportDeconGuide112805.pdf

Water Infrastructure. Information on Financing, Capital Planning, and Privatization. United States General Accounting Office. Report to Congressional Requesters. August 2002. www.gao.gov/cgi-bin/getrpt?GAO-02-764

Gould, Tom. "The Challenge of Utility Infrastructure Funding and Financing." Waterscapes, Summer, Volume 16, Number 2. Available online at www.hdrinc.com/15/42/default.aspx?listingID=798

Journal of Urban Planning and Development. American Society of Civil Engineers.
www.pubs.asce.org/journals/up.html

Associations and Agencies

American Society of Civil Engineers (ASCE)
www.asce.org

Sustainability

Sustainable or "green" design and development encourage careful stewardship of our natural resources, both those that provide materials to achieve economic goals and those that sustain daily life. This must be a central criterion for planning policy. Sustainability goes beyond issues of physical form. It recognizes that the short-term viability and prosperity of our region cannot come at the expense of the natural resources on which our children's future depends.

South Louisiana is more than just a collection of communities. In very real ways, our communities are all connected, our futures intertwined. Many natural and manmade systems – such as wetlands, highways and regional economies – spill across town, city, and parish lines. To ensure sustainability, planning must cross governmental boundaries.

IDENTIFYING OPPORTUNITIES

By understanding the connections between wetland restoration, storm protection, clean air and water, stronger economies, better schools, improved access to jobs and housing, and transportation systems, we can create regional approaches to a more sustainable future. Planning at all scales can also promote sustainability by using strategies that recognize and evaluate life-cycle costs and benefits of both short- and long-term solutions. Developing land in concert with its natural systems also reduces the cost of development for communities as well as developers.

Communities should require management of stormwater on-site through the use of rain gardens, pervious pavement, bioswales, cisterns, and other stormwater best management practices. Jurisdictions can conserve energy by performing a comprehensive energy audit, analyzing energy-saving potential in the municipal vehicle fleet, public transportation system, and publicly owned buildings and infrastructure. Cogeneration opportunities or shared access to renewable energy through photovoltaic panels can also provide tremendous savings. To reduce water at the building level or even within the municipal government facilities, some cities have implemented strict recycling programs in public buildings, dramatically reducing trips to the landfill.

PROPER SITE SELECTION

Proper site selection avoids development of unsustainable sites and damage to fragile or scarce environmental resources. New development should not be located on wetlands, prime farmland, parkland and other ecologically sensitive areas. Low-impact development (LID) conserves and protects the natural resources of a site. Developing land in concert with its natural systems reduces the cost of development by requiring less engineered infrastructure. Locating projects in this manner offers the greatest opportunity to take advantage of existing infrastructure, helps conserve land, reduces the burden on taxpayers and local government to support newly outlying development, manages stormwater runoff, and reduces travel distances and automotive pollution.

INTEGRATING DESIGN AND DEVELOPMENT

An integrated design and development process incorporates sustainability up-front, using a holistic, total-systems approach that promotes good health and livability. Sustainable strategies should be incorporated from the moment the developer initiates the project.

D-42 Solar panels at the Chicago Center for Green Technology.

By understanding the connections between wetland restoration, storm protection, clean air and water, stronger economies, better schools, improved access to jobs and housing, and transportation systems, we can create regional approaches to a more sustainable future.... Developing land in concert with its natural systems also reduces the cost of development for communities as well as developers.
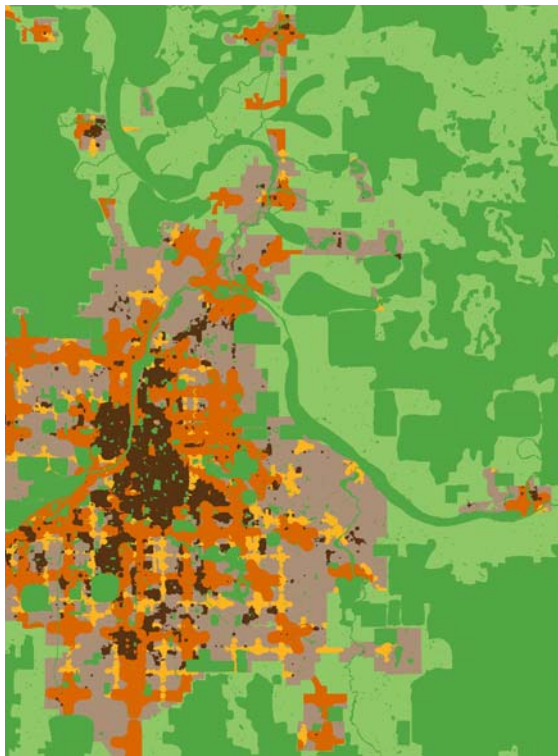
D-43 Regional Growth Transect: Regional development patterns should be bounded by natural conservation and protected rural areas.

REGION

>> Plan areas of new development to protect natural resources, especially wetlands. Use regional and local watershed and critical habitat information to examine project impacts and opportunities for wetlands and habitat restoration.

>> Use FEMA's Base Flood Elevations to avoid project sites that could be significantly impacted by future flood waters.

>> Use previously developed sites, including those where development is complicated by real or perceived environmental contamination (brownfield sites) or physical constraints.

>> Limit development on undeveloped land that is far from existing development.

>> Limit the spread of pavement and lawns into rural or natural areas.

>> Use regional transportation plans to select sites near existing or future mass transit.

D-44a (before), 44b (after), and 44c (close-up) Buffalo Bayou, Houston, Texas: Regional and city-wide measures toward sustainability include re-naturalizing Buffalo Bayou to accommodate varying water flow and flood levels, to cleanse the water with vegetation, and to provide a major public recreational and open space corridor.

CITY AND TOWN

>> Create rules and incentives for sustainable site development.

>> Integrate green building principles and improved disaster-resistant building guidelines into zoning and design guidelines.

>> Establish a watershed protection ordinance to protect streams and manage stormwater.

>> Create incentives for energy-efficient construction. These may include building permit fee waivers or faster approval processes for Energy Star, LEED, or other building certifications.

>> Create compact development and discourage sprawl through zoning changes.

>> Ensure that transportation decisions can accommodate future use of public transportation, even if this option is not planned for the near-term.

>> Evaluate energy and water requirements and apply sustainable strategies to reduce the amount of resources required.

>> Establish recycling programs and collect recyclables along with trash.

>> At the confluence of critical rivers and streams, conserve land and habitat and provide public open space as a wetland mitigation and stormwater strategy.

NEIGHBORHOOD

>> Choose efficient locations. Emphasize the importance of public transportation and existing infrastructure in site selection, including a preference for brownfield and infill development.

>> Consider social equity issues – such as a concern for the balance of jobs and housing, proximity to schools, and access to public space – when selecting sites for development.

>> Make environmental preservation a priority. Promote protection of environmental resources through parkland, farmland preservation, and wetland restoration/conservation with attention to imperiled species and ecological communities.

>> Encourage use of the LEED for Neighborhood Development (LEED-ND) rating system for all neighborhood development projects. This system, under development by the U.S. Green Building Council, the Congress for the New Urbanism, and the Natural Resources Defense Council, integrates the principles of smart growth, urbanism, and green building into the first national standard for neighborhood design.

>> Minimize site disturbance and preserve steep slopes and tree stands as key considerations in site design.

>> Maintain or reduce stormwater run-off rates.

>> Reduce outdoor hazardous waste pollution.

>> Emphasize compact, walkable neighborhoods with a diversity of housing options and uses connected to transportation. Walkable streets and pedestrian networks maximize the pedestrian experience, limit the need for automobile trips, reduce the parking footprint, and facilitate healthy lifestyles.

>> Connect new development to the culture of the region by developing new uses in historic buildings and maintaining regional architecture and urban patterns.

>> Promote natural resource conservation through the efficient use of resources, construction waste management, green building materials, and efficient use of energy and water.

>> Generate power on-site, taking advantage of renewable resources, when possible.

>> Optimize efficiency of water usage through efficient irrigation, graywater and stormwater reuse, and wastewater management.

>> Give priority of use to materials that are reused, recycled, and/or regionally provided.

D-45 Water management within neighborhoods creates public amenities featuring native plant materials.
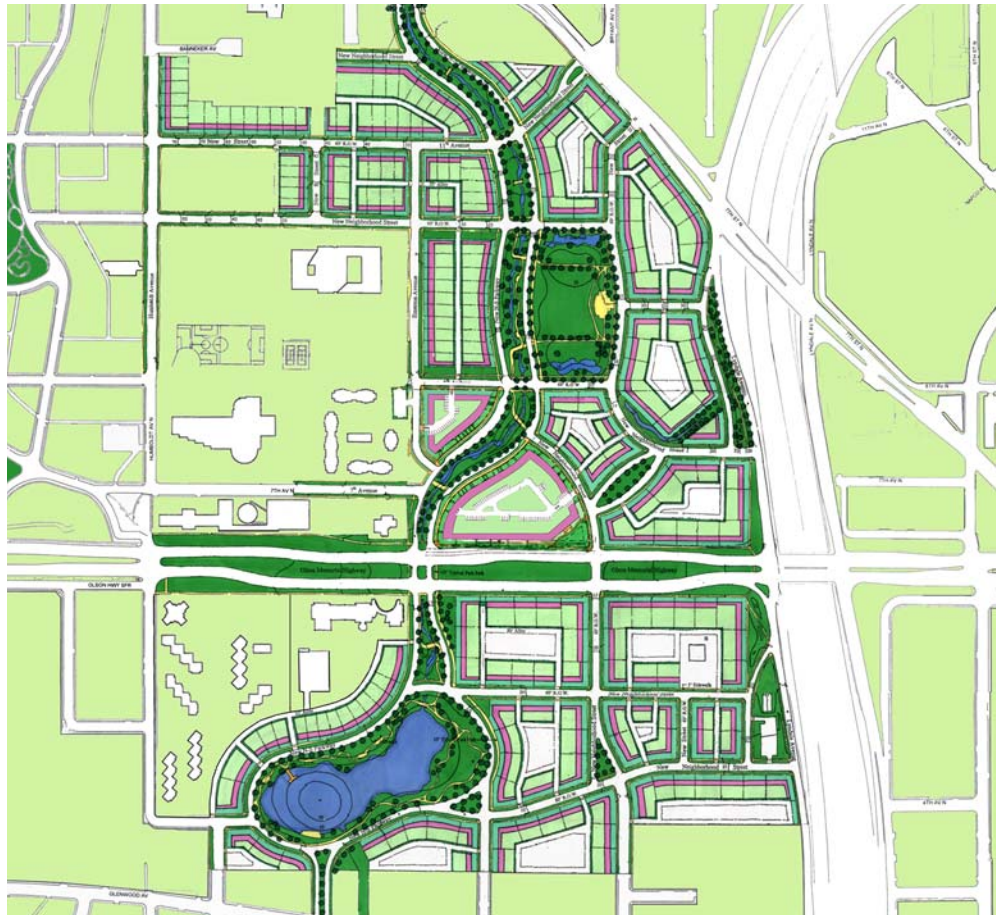
D-46 Plan showing framework of public open space and restored and reestablished natural features in the center of an urban neighborhood which had been poorly developed in a way that eliminated the natural features.

D-47 This water feature was designed as part of a stormwater management system. It also provides attractive views for the blocks which front it and amenities for the neighborhood.
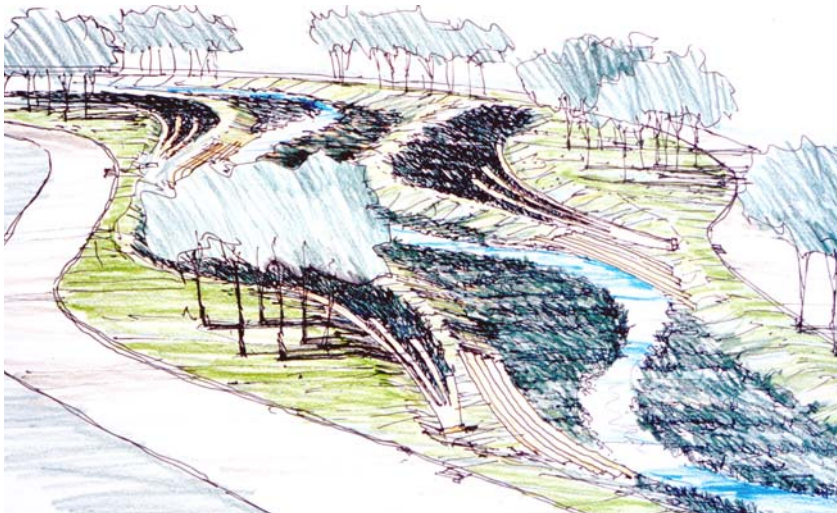
D-48 Sumner Park, Minneapolis, MN: Vegetated banks and native plant species along the Bassett Creek streambed and flood plain were recreated in a site that had covered up the streambed. The new public park also incorporates bioswales and water gardens as aesthetic amenities and water management features.
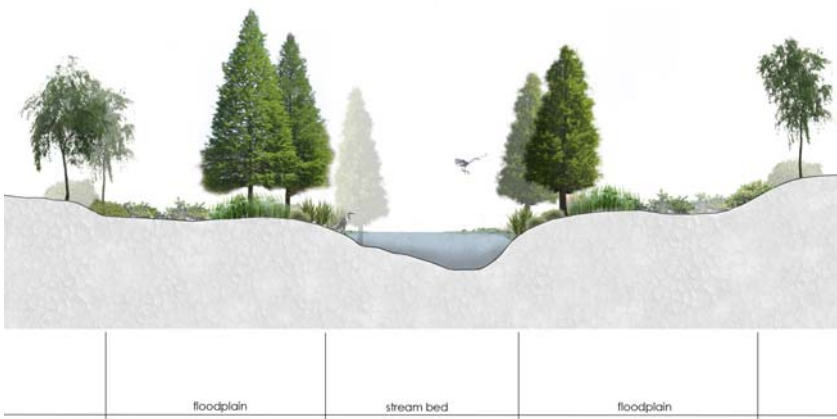
D-49 Natural streams include a streambed and flood plain within the vegetated banks. The flood plain is home to wetland habitat that supports wildlife and important native plant species.

BLOCK

BLOCK PATTERNS

>> Create "green" public ways in the form of greenways along drainage ways, trails, courts, shared gardens, walkways or promenades.

>> Where block patterns permit, make the centers of blocks green areas to detain and retain stormwater and decrease the amount of impervious surfaces.

>> Use natural plantings that absorb stormwater (rain gardens) and natural low areas that provide storm drainage (bioswales), infiltration ponds and trenches, constructed wetlands, and other devices for minimizing the impact of development on the natural environment.

GREEN PRINCIPLES

>> Locate projects on sites with access to existing roads, water, sewers, and other infrastructure within or contiguous to existing development.

>> Protect the environment. Do not locate new development on wetlands, prime farmland, parkland, or steep slopes.

>> Provide proximity to services. Locate projects in walking distance of community and retail facilities.

>> Create compact development. Achieve densities for new construction of at least 6 units per acre for detached or semi-detached; 10 for townhomes; and 15 for apartments. Where possible, achieve densities of 7 units per acre for detached or semi-detached; 12 for townhomes; and 20 for apartments.

>> Design walkable neighborhoods. Include sidewalks or other suitable pathways within a multi-family property or single-family subdivision to encourage walking within and off the site. Provide at least three connections to sidewalks or pathways in the surrounding neighborhood where possible.

>> Consider solar orientation. Make use of passive solar heating and cooling where possible by elongating buildings along an east-west axis.

>> Conserve greenfields. Locate the project on old, underutilized strips or other development (grayfield), sites with environmental clean-up needs (brownfield), or new uses for historic buildings.

>> Consider transportation choices. Locate projects within a quarter mile of adequate public transit.

LOT AND BUILDING

>> Consult a landscape architect to plan and landscape the site, design sustainable drainage systems, and to help increase energy savings.

>> Design landscapes in concert with stormwater management using raingardens, pervious pavement, infiltration trenches, and constructed wetlands.

>> Use trees to provide shade to the building in the summer and allow sunlight into the building in the winter.

>> Use pervious surfaces on walkways and parking areas to decrease water run-off. Any hard surfaces on-site should be a light color – but not bright white – to reflect light, reducing radiant surface heat in the summer.

>> Use native or naturalized plants to reduce watering and fertilizing needs and improve rainwater percolation into the soil.

>> Minimize the use of lawns wherever possible. Unless they can be maintained without herbicides or fertilization, lawns are only recommended in play areas.

>> Orient buildings for maximum solar exposure.

>> Create and implement a stormwater pollution prevention plan (SWPPP) to reduce soil erosion and waste run-off during construction.

>> Label storm drains with their ultimate outfall locations – such as Lake Pontchartrain or the Amite River – to discourage the dumping of pollutants.

>> Use recycled graywater for site irrigation. Graywater is non-sewage water from buildings or run-off from roofs or the site.

>> Use LEED, Energy Star, or equivalent energy efficiency standards in building construction.

Deep overhang

Typical angle: summer sun

Shutters

Double-hung window opened for air circulation
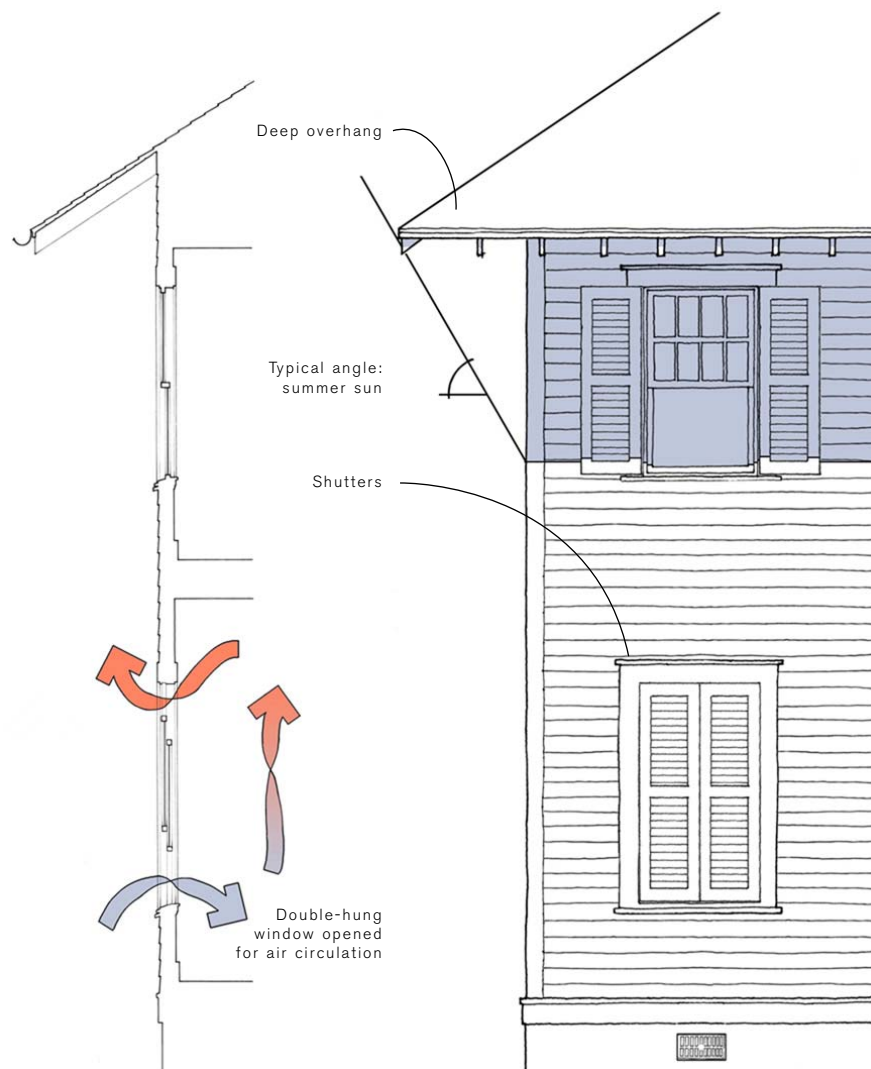
D-51 Traditional passive solar devices.
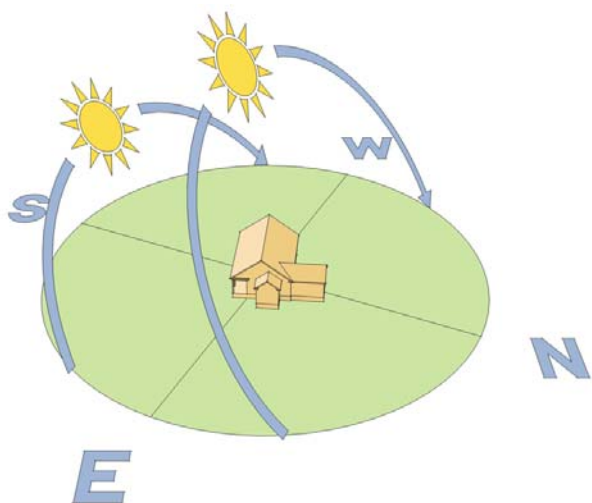
D-50 Sun orientation criteria for energy-efficient buildings.

D-52 A green roof reduces energy consumption and helps improve the atmosphere.

RESOURCES

Hester, Randolph. 1995. "Life, Liberty and The Pursuit of Sustainable Happiness: Designing, Building, and Inhabiting a Sustainable American City." In Places: A Quarterly Journal of Sustainable Design 9(3)

AIR AND WATER QUALITY

Louisiana Department of Environmental Quality
www.deq.louisiana.gov

COASTAL RESTORATION AND CONSERVATION

LaCoast. News, education, reports and maps on Louisiana coastal restoration and conservation
www.lacoast.gov

ENERGY EFFICIENCY

"New Energy for Cities: Energy-Saving & Job Creation Policies for Local Governments ." The Apollo Alliance.
www.apolloalliance.org/document.cfm?documentID=166

Energy Star Programs
www.energystar.gov

Rebuild America
www.energysmartschools.gov

FLOOD PROTECTION

Louisiana Floods Virtual Mall - floodproofing. Hosted by the LSUAgCenter. A place to "shop" for floodproofing products, contractors, and professional services.
www2.lsuagcenter.com/lafloods/virtualmall/virtualmall.asp

LSU AgCenter
www.lsuagcenter.com/en/family_home/hazards_and_threats/reducing_risk/

National Flood Insurance Program – Estimate your premium and to Find an agent if your homeowner's insurance agent does not sell flood insurance.
www.floodsmart.gov/floodsmart/pages/index.jsp

GREEN PRINCIPLES AND GREEN BUILDING

U.S. Green Building Council
Although guidelines are still in draft form, the USGBC has been a leader in promoting sustainable and environmentally sensitive neighborhood development.
www.usgbc.org/DisplayPage.aspx?CMSPageID=148

U.S. Green Building Council / LEED
www.usgbc.org

U.S. Green Building Council. "The New Orleans Principles. Celebrating the Rich History of New Orleans Through Commitment to a Sustainable Future."
green_reconstruction.buildinggreen.com/documents.attachment/305068/NewOrleans_Principles_LowRes.pdf

U.S. Green Building Council. "Sustainability Guidelines for Gulf Coast Reconstruction." Download from
green_reconstruction.buildinggreen.com/documents.html

To join the Louisiana Chapter of the U.S. Green Building Council, contact: chris@gasawayarchitects.com

Global Green USA
www.globalgreen.org/greenbuilding/index.html

Green Guide for Health Care
www.gghc.org

HURRICANE KATRINA FLOOD RECOVERY

Federal Emergency Management Agency
www.fema.gov/hazard/flood/recoverydata/katrina/katrina_la_maps.shtm

Flood recovery data
www.fema.gov/hazard/flood/recoverydata/katrina/katrina_la_faqs.shtm

Hurricane Katrina Flood Recovery Maps
www.fema.gov/hazard/flood/recoverydata/katrina/index.shtm

PLANNING AND URBAN DESIGN STANDARDS

Design Trust for Public Space
designtrust.org/publications/publication_03hpig.html

EPA model ordinances to protect local resources
www.epa.gov/owow/nps/ordinance/index.htm

Miscellaneous model codes and ordinances (compiled by CNU; including TNDs, overlays, enabling legislation, redevelopment districts, etc.)
www.cnu.org/pdf/code_catalog_8-1-01.pdf

Regional Land Use Plan
www.louisianaspeaks.org/planning.html?c=10

RAINWATER COLLECTION AND STORAGE

BMPs for dealing with urban run-off
www.epa.gov/ost/stormwater

TREATED SEWAGE

City of Hammond – sewage treatment facility utilizes wastewater to boost wetland health. Part of the state and national strategy for rebuilding the Louisiana coastline. The Advocate, Feb. 13, 2006, Sec. 1, p. 1.

Industrial uses of water from sewage treatment plants – "blackwater" – can be found in this Shreveport example:
www.ci.shreveport.la.us/mayorpr/pr2001/051001deqpresser.htm

Equity: Accessibility and Affordability

Adopting the Universal Design paradigm – which stresses accessibility for everyone – as a principle for renewal in South Louisiana makes great sense economically and from a social equity perspective. The Planning Assembly Kit expands the issue to include access to services, employment, and affordable housing – fundamental concerns at all scales of planning.

RANGE OF HOUSING TYPES AND SIZES

Communities should provide a wide range of housing types and sizes to accommodate people of all ages and economic status. As new developments are built, they should contain a mix of uses and unit types. To avoid the stigmatization created by much of the affordable housing in the recent past, affordable house designs should not earmark them as such; rather, they should blend seamlessly with other houses in the neighborhood.

Inclusive zoning policies can require that a specified percentage of each new development be dedicated to affordable homes. This fosters the distribution of housing at all price ranges. Workforce housing should be near to jobs and accessible to transit. Creating compact walkable communities which include employment, residential, commercial, educational, and service uses within a small area is one means of achieving this.

ADDRESSING SOCIAL EQUITY ISSUES

Universal design principles (see page 9) bring another issue to the question of planning that supports social equity. Of the estimated 700,000 or more people acutely impacted by Hurricane Katrina, a significant number were seniors with disabilities, living below poverty level. An estimated 88,000 persons age 65 and older may have been displaced. Nearly half of all persons 65 or older living in flooded or damage-affected areas reported having a disability. Based on 2000 Census data, among elderly persons likely displaced by the storm, about 20,000 were in poverty or near the poverty line. In planning the future of South Louisiana, the needs of these underprivileged groups must be addressed. Market forces alone will not do it.

The Americans with Disabilities Act (ADA) requires that all newly built public accommodations and street rights-of-way be accessible. The Fair Housing Act (FHA) requires 5 percent of dwelling units built with federal, state, or local funds be accessible at a level exceeding the FHA. However, neither laws nor practices have caught up with the demographic and social reality. Privately financed one- to three-family dwellings are not covered by federal laws. Individuals with disabilities have little choice in the housing market unless they can pay the premium for a custom-built home or a major renovation project.

VISITABILITY

Visitability is a further concept that calls for basic access to one- to three-family dwellings. However, planning for livable communities means designing for "aging in place" with additional features such as a ground-floor room that can be used for sleeping and a full, accessible bathroom. These reduce the need for relocation to assisted living and long-term care facilities. Average U.S. nursing home costs now exceed $50,000 per year per person; public dollars pay more than 60 percent. Most people strongly desire to remain at home as long as possible. The cost of visitability and universal design is very low; the benefits very high for the individual and the community. However, the requirement that first-floor elevations be raised for flood protection does make visitability and accessibility more difficult to achieve. Innovative solutions are needed.

D-53 Eye-level perspective shows mixed-income neighborhood design with visitable houses. Affordable units are indistinguishable from market-rate houses.

Communities should provide a wide range of housing types and sizes to accommodate people of all ages and economic status. To avoid the stigmatization created by much of the affordable housing in the recent past, affordable house designs should not earmark them as such; they should blend seamlessly with other houses in the neighborhood.
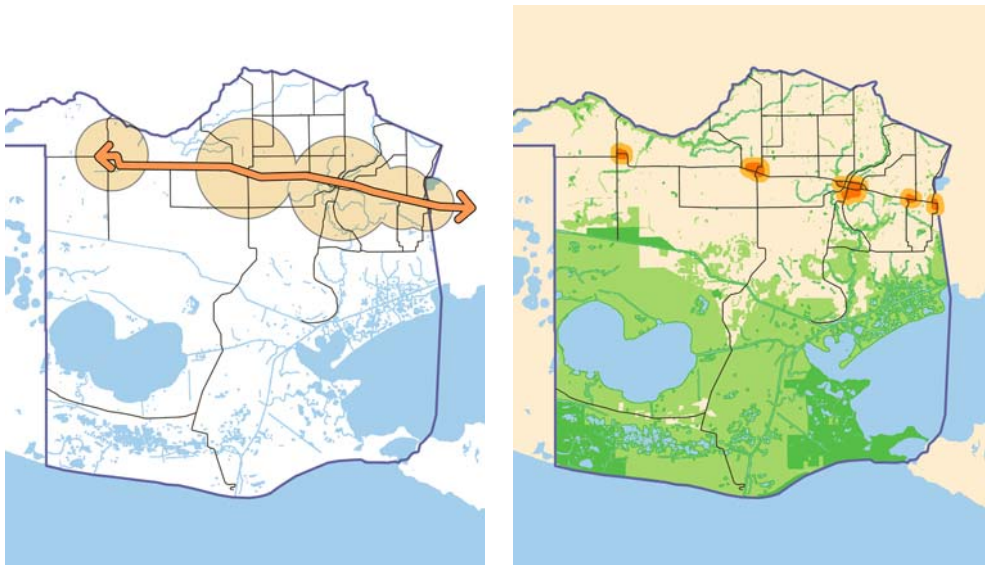
D-54a and 54b These diagrams illustrate the connectivity between and within developed areas, each of which contains a mix of housing types and services.

REGION

>> Develop policies that call for an equitable distribution of workforce housing and services near educational and employment opportunities.

>> Consider inclusionary zoning, collaborative development programs with both for-profit and not-for-profit developers, and support for low-income home owners and renters in areas as they are revitalized.

>> Ensure that all facilities for transportation, health, education, and other community services are fully accessible and distributed within reasonable proximity to all citizens.

>> Consider the needs of all people, of all ages and abilities, when planning for disaster preparedness, response, and recovery operations.

>> Provide job training to under-employed residents. Training should respond to specific job market needs such as hospitality, construction, or filmmaking.

D-55 Mixed-use, traditional towns and villages have a mix of housing types and an interconnected network of accessible pedestrian routes which provide options for all.

D-56 The proposed new Erath neighborhood includes pedestrian zones within which a range of housing types and amenities will occur.

CITY AND TOWN

>> Require or encourage mixed-income developments which offer a range of size, cost, and type of housing.

>> Adopt programs for assisting home owners and renters in rehabilitating and improving their homes in place.

>> Provide technical and financial assistance for low-income residents and disabled persons who will need to make their homes more accessible.

>> Support visitability as a concept and develop means of achieving it where possible.

>> Provide for continuity of experience for a diverse public to ensure proximity, accessibility, and visitability to services and amenities for everyone.

>> Include options and choices in street plans that provide equitable access to community resources in ways that do not stigmatize anyone.

>> Create a variety of transportation options that support mobility and access for all citizens.

>> Promote healthy lifestyles for all citizens through access to recreational pursuits.

>> Ensure that citizens can connect with cultural resources and traditions.

NEIGHBORHOOD

>> Provide sufficient variety in housing types to accommodate a wide range of household types.

>> Support active living for all residents by including sidewalks and other pedestrian paths throughout the neighborhood.

>> Provide opportunities for social interaction for all age groups.

>> Promote healthy lifestyles.

D-57 This HOPE VI redevelopment project in Louisville, Kentucky provides affordable housing (with visitable and accessible units) adjacent to a medical center and downtown.

BLOCK

>> Diversify housing types within blocks as the best way to support mixed-income development.

>> Modify site grading at the block level (where it can be achieved without adverse drainage effects and more easily than on a lot-by-lot basis) to facilitate accessibility and visitability.

>> Ensure that street crossings and public transportation stops are accessible for people with functional limitations.

>> Provide pedestrian paths that reduce distances to neighborhood resources.

>> Support a wide range of needs and social interaction by strategically placing site furniture, such as benches, seating walls, bus shelters, and lighting on blocks.

D-58 Left: By raising the elevation of the middle of the block, each building has a zero-step entry from the parking area. Top right: Site detail shows the zero-step entry from the parking area. Bottom right: Cross-section illustrates grading with a raised porch on the street and a zero-step entry from the parking area.

LOT AND BUILDING

>> Make sites welcoming to all.

>> Achieve visitability by providing at least one entrance without stairs, clearance for wheelchair access on the entry floor in hallways and at doorways, and a half bath with wheelchair access on the entry floor. This is particularly difficult in situations requiring an elevated first floor. Several techniques using a combination of site grading and ramp construction should be considered. In many cases, mechanical devices such as chair lifts, porch lifts, or small elevators may be the only solution.

>> Connect public facilities and site amenities to all related adjoining uses through accessible paths of travel.

>> Grade residential sites, wherever possible, to provide at least one accessible path from a driveway or public walkway to each dwelling unit.

>> Consider including accessible vertical circulation as a public amenity on sites where flood plain restrictions require raising buildings high above grade.
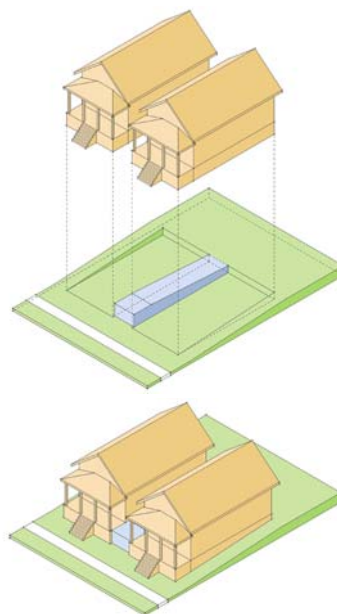
D-59 Diagrams illustrate the placement of ramps between shotgun-style houses with a raised first floor elevation required by FEMA in flood zones.

D-60 Houses with ramped, zero-step front entries provide visitability for residents of the neighborhood.

RESOURCES

BOOKS AND PERIODICALS

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. See Part 1: Plans and Plan Making: Housing Plans, pp. 31 and 33; Advocacy and Equity Planning; pp. 82-83; Environmental Justice, pp. 93-94; Healthy Cities and Communities, p. 96; Part 5: Analysis Techniques: Housing Needs Assessment, pp. 509-511; and Resources, pp. 671, 674-675, 687.

Danford, G.S., and B. Tauke, editors. *Universal Design New York.* New York, NY: Mayor's Office for People with Disabilities. 2001.

Kochera, A., A. Straight, and T. Guterbock. *Beyond 50.05. A Report to the Nation on Livable Communities: Creating Environments for Successful Aging.* Washington, DC: AARP Public Policy Institute. 2005. Order a printed copy of the report or download from:
www.aarp.org/research/housing-mobility/indliving/beyond_50_communities.html

Levine, D., and E. Steinfeld. *Universal Design New York 2.* New York, NY: New York City Department of Design and Construction. 2003.

Maisel, J. "Toward inclusive housing and neighborhood design: A look at visitability." The Journal of the Community Development Society Special Issue on Disability and Community. 2006.

Staley, Sam and Leonard C. Gilroy. "Smart Growth and Housing Affordability: Evidence from Statewide Planning Laws." Reason Public Policy Institute. www.rppi.org/ps287.html

Steinfeld, E. and J.P.S. Salmen. *Accessibility codes and standards. Encyclopedia of Disability.* Thousand Oaks, CA: Sage Publications. 2005.

Philip B. Herr & Associates. "Zoning for Housing Affordability." Prepared for the Massachusetts Housing Partnership Fund. www.mhp.net/termsheets/zoningcomplete.pdf

WEB SITES

Concrete Change
www.concretechange.org

Easy Living Home
www.easylivinghome.org

Lifetime Homes (UK)
www.lifetimehomes.org.uk

Development Patterns

The frameworks that have been described up to this point in the Planning Assembly Kit not only serve and protect existing development, they should also be used to define the limits and set criteria for future development. By reinforcing existing settlements and investing in fixing what's "broken" within them, rather than expending resources on supporting widely dispersed, low-density development, communities can ensure and improve their futures through a more efficient system which subsequent generations will actually be able to afford.

Therefore, the first priority is to focus new development into those places that are already developed and in need of improvement, such as shuttered malls or strip centers (grayfields) or environmentally contaminated sites (brownfields), including old service stations. Second priority should be to develop land immediately adjacent to the existing developed areas, because those sites can most readily and cost-effectively be connected with existing infrastructure and public services. Open land (greenfield) development should be the lowest priority and should only be considered in the form of mixed-use compact communities in locations near existing development and well connected to regional networks.

SELECTING APPROPRIATE TYPES OF INVESTMENT

Investments in infrastructure should be seen as investments in managing development patterns. For example, new transit lines can almost never be justified on the basis of current users paying for it, but by focusing future development in specific areas, the new line can eventually result in enough usage to support it, while furthering the overall goals of compact development and targeted investment and reinvestment.

DESIGNING FOR CHANGES IN USE OVER TIME

History tells us that uses in towns and cities change over time. The world's great cities have a physical form that accommodates that change. Their form is based on circulation and addresses the creation of a public or civic realm. The best cities and towns are those in which there is a dynamic mix of uses and activities which can change over time as needed. Rigid use zoning is counter-productive to this goal of flexibility in use over time and, consequently, has led to the segregated patterns that plague communities today.

New tools are needed. Form-based zoning codes represent one school of thought on how to fundamentally change the approach. These codes can be used as an alternative to conventional zoning or as an overlay in conjunction with existing conventional zoning. The scale of development, including the amount, density, and range of types, is defined with each zone. Each has a range of potential uses that support mixed-use and mixed-income development as a means of creating compact, walkable, and sustainable communities.

Other approaches can also lend flexibility to conventional zoning. Design or use overlays can be applied to specific districts or corridors to add depth and flexibility to conventional zoning. Planned urban development (PUD) zones allow sites to be individually master-planned and then reviewed on a case-by-case basis for approval. Traditional neighborhood development (TND) or rural "cluster" zoning districts embody many of the aspects of form-based codes. These innovative zones can be included in a zoning map or left as unmapped "floating" zones, meaning a simple rezoning is all that a developer needs. Many of these approaches require significant capacity in planning staff; however, because they add material to zoning codes, they can make the codes more cumbersome.

History tells us that uses in towns and cities change over time. The world's great cities have a physical form that accommodates that change. Their form is based on circulation and addresses the creation of a public or civic realm.

| Regional Land Use | Development by Building Form | Residential Framework | Residential Block Plan | Residential Lot |
| | Development by Use | Commercial Framework | Commercial Block Plan | Mixed-Use Lot |

REGION

>> Give first priority to infill development within areas already partially or inefficiently developed.

>> Ensure efficient use of existing infrastructures.

>> Invest in new development that supports repair and improvement of the existing systems, rather than creating new systems.

>> Relieve development pressures on vulnerable natural areas and resources.

>> Promote compact, walkable communities.

>> Give second priority to areas immediately adjacent to existing development.

>> Favor this type of development over greenfield development because adjacent expansion of infrastructure is more efficient.

>> Support local economies by directing population growth to development adjacent to existing centers.

>> Design development in ways that will also help improve the conditions in existing development.

D-61a Salt Lake Area: Regional centers, districts and corridors.
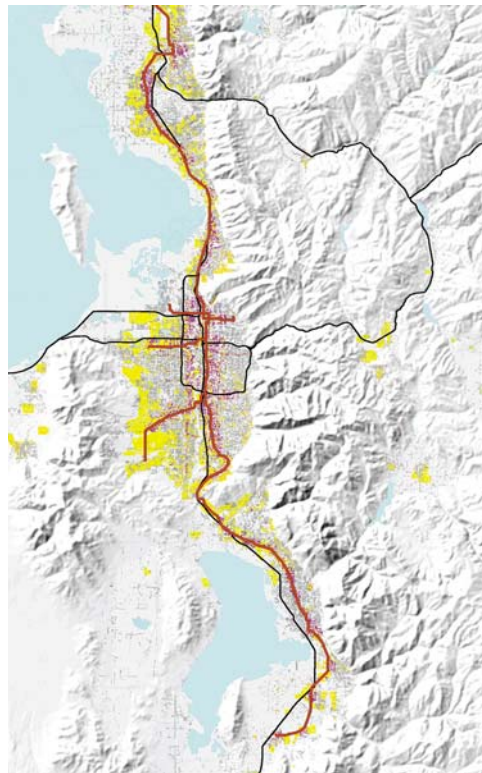
D-61b Salt Lake Area: Infill, redevelopment and new growth areas.

D-61c Salt Lake Area: Composite showing regional sub-centers.

D-61d Salt Lake Area: Regional open space.

D-61a, 61b, 61c, and 61d Envision Utah Regional Plan
The regional plan allocates appropriate scales of development within the larger scale frameworks of natural features and transportation networks.

CITY AND TOWN

>> Recognize the different zones within the city or town based on their use and scale of development. Make decisions which are consistent with the physical and use characteristics within those zones.

>> Allow multiple uses in each distinct zone, ensuring that the scale and type of those uses are compatible with the scale of the zone. For example, a commercial use in a suburban area should be sufficiently small in scale to be compatible with the neighborhood, while a commercial use in a town center can be much larger. Although the emphasis should be on mixed-use development, it is important to locate commercial uses in a way that creates synergy among different businesses, such as concentrating retail uses along a main street.

>> Treat institutional uses such as schools, libraries, and city government buildings as an integral part of the interconnected network of streets and public open space. When possible, locate institutional uses at key points in the city or town and relate them to public open space. In some cases, this would be a larger park or recreation area; in others, a small-scale green or simply a large front yard.

>> Coordinate educational, civic, recreational, and cultural facilities as described in the "Nexus" program being developed in New Orleans. Multi-using physical facilities and the outdoor facilities related to them creates a much more cost-effective way of providing a full range of services to communities. It also creates focal points of community activity for all ages.

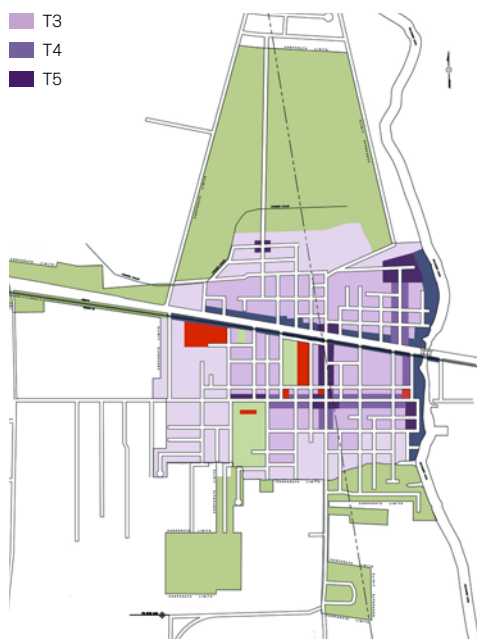>> Place general districts (such as industrial parks) at the edges of cities and towns, along major thoroughfares and separate from mixed-use areas. Such districts should not interrupt the continuity of the centers of cities and towns.

■ T3
■ T4
■ T5

D-62 Plan for Delcambre using zoning based on scales of development.

D-63 Illustrative plan of Delcambre.

a. **Common Yard**: a frontage wherein the facade is set back substantially from the frontage line. The front yard created remains unfenced and is visually continuous with adjacent yards, supporting a common landscape. The deep setback provides a buffer from the higher speed thoroughfares.
— **T2** Rural / **T3** Sub-Urban

b. **Porch & Fence**: a frontage wherein the facade is set back from the frontage line with an attached porch permitted to encroaching. A fence at the frontage line maintains the demarcation of the yard. The porches shall be no less than 8 feet deep.
— **T3** Sub-Urban / **T4** General Urban

c. **Terrace or Light Court**: a frontage wherein the facade is set back from the frontage line by an elevated terrace or a sunken light court. This type buffers residential use from urban sidewalks and removes the private yard from public encroachment. The terrace is suitable for conversion to outdoor cafes.
— **T4** General Urban / **T5** Urban Center

d. **Forecourt**: a frontage wherein a portion of the facade is close to the frontage line and the central portion is set back. The forecourt created is suitable for vehicular drop-offs. This type should be allocated in conjunction with other frontage types. Large trees within the forecourts may overhang the sidewalks.
— **T4** General Urban / **T5** Urban Center / **T6** Urban Core

e. **Stoop**: a frontage wherein the facade is aligned close to the frontage line with the first story elevated from the sidewalk sufficiently to secure privacy for the windows. The entrance is usually an exterior stair and landing. This type is recommended for ground-floor residential use.
— **T4** General Urban / **T5** Urban Center / **T6** Urban Core

f. **Shopfront and Awning**: a frontage wherein the facade is aligned close to the frontage line with the building entrance at sidewalk grade. This type is conventional for retail use. It has a substantial glazing on the sidewalk level and an awning that may overlap the sidewalk to the maximum extent possible.
— **T4** General Urban / **T5** Urban Center / **T6** Urban Core

g. **Gallery**: a frontage wherein the facade is aligned close to the frontage line with an attached cantilevered shed or a lightweight colonnade overlapping the sidewalk. This type is conventional for retail use. The gallery shall be no less than 10 feet wide and may overlap the whole width of the sidewalk to within 2 feet of the curb.
— **T4** General Urban / **T5** Urban Center / **T6** Urban Core

h. **Arcade**: a frontage wherein the facade is a colonnade that overlaps the sidewalk, while the facade at sidewalk level remains at the frontage line. This type is conventional for retail use. The arcade shall be no less than 12 feet wide and may overlap the whole width of the sidewalk to within 2 feet of the curb.
— **T5** Urban Center / **T6** Urban Core

D-64 Typical form-based code criteria for appropriate scale of buildings and their relationship to public space.

| Regional Land Use | Development by Building Form | Residential Framework | Residential Block Plan | Residential Lot |
| | Development by Use | Commercial Framework | Commercial Block Plan | Mixed-Use Lot |
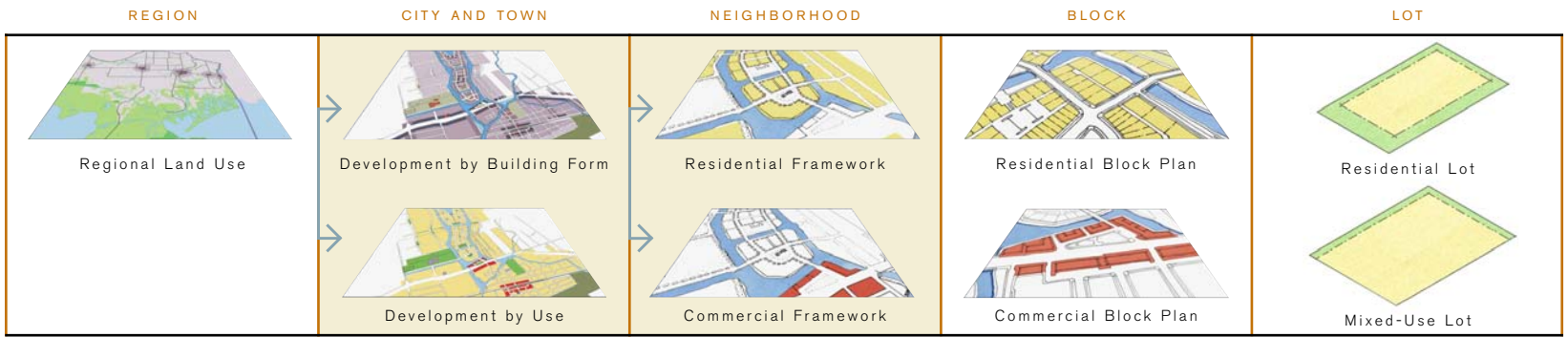
D-65 West Rock, CT: Framework of civic and open space.

D-66 West Rock, CT: Plan indicating diverse range of housing types and building uses to create mixed-income neighborhood.

NEIGHBORHOOD

>> Base the neighborhood plan on the interconnected network of streets and public open space.

>> Connect the street pattern to the natural and/or agricultural edges of the neighborhood to create a strong sense of place.

>> Define public open space and natural areas using streets to provide a shared value for residents, equitable access for all residents, and a sense of place.

>> Place buildings facing public ways in a manner that creates public spaces.

>> Make height and mass of buildings consistent with the larger context.

>> Make civic and institutional buildings an integral part of the interconnected network of streets and open space. Placing such buildings strategically in park-like settings can make them focal points for the community.

>> Include a mix of house and building types in neighborhood development patterns in order to accommodate all ages and incomes.

>> Include a mix of uses including retail, civic, and educational uses.

D-67 Neighborhood street network and its relationship to institutional use.

D-68 Neighborhood street network and its relationship to natural features.

D-69 Neighborhood street network and building orientation.

BLOCK, LOT, AND BUILDING

>> Conceive of individual blocks as part of the larger pattern of blocks, supported and served by the interconnected network of streets and open space.

>> Ensure that blocks can support a diverse range of building types, recognizing that block types will differ by density.

For small-scale neighborhood blocks, a variety of single-family and double houses ranging from very small cottages to large houses is appropriate.

For intermediate-scale blocks, a mix of single-family houses, double houses, and even small apartments is appropriate.

For larger scale blocks, the appropriate range of building types includes single-family houses, townhouses, and apartment buildings that could include retail uses at the corner.

>> Base dimensions of blocks on conditions found in the existing community as well as the requirements of the proposed uses.

>> Develop blocks with building placement that defines the streets and public spaces to which they relate.

>> Define block types by the way in which they are serviced. Front-loaded blocks are serviced from the street; rear-loaded blocks are serviced from the center of the block, either by an alley or central parking area.

FRONT-LOADED BLOCKS

>> Locate buildings close to the street and provide maximum frontage along the street.

>> Set back garages and services behind the building facades.

>> Limit driveways and garage areas to a maximum of 35 percent of the block frontage.

>> Provide setbacks adequate for front lawns and back yards.

>> Relate setback patterns to those in the community in which the development is located.

REAR-LOADED BLOCKS

>> Accommodate a wide range of densities and types of development without causing conflicts with adjacent areas.

>> Locate buildings close to the street and provide maximum frontage along the street regardless of the mix of building types on the block.

>> Set back garages and service areas behind the buildings.

>> Provide setbacks adequate for front lawns and back yards.

>> Relate setback patterns to those in the community in which the development is located.
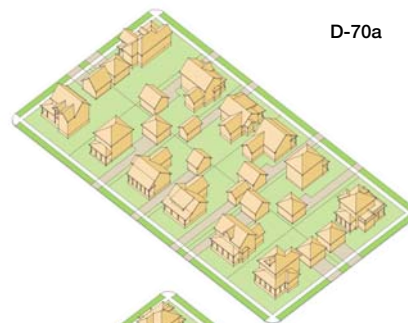
D-70a
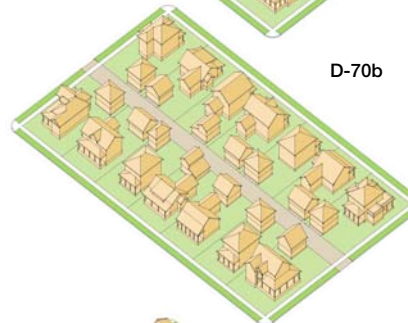
D-70b
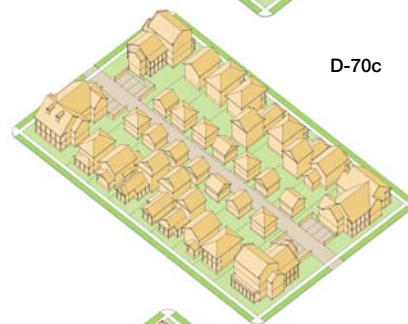
D-70c

D-70d
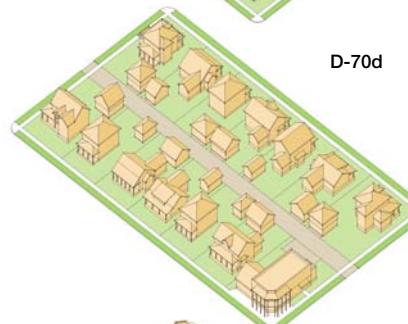
D-70e
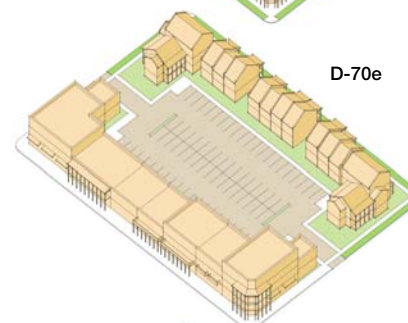
D-70f
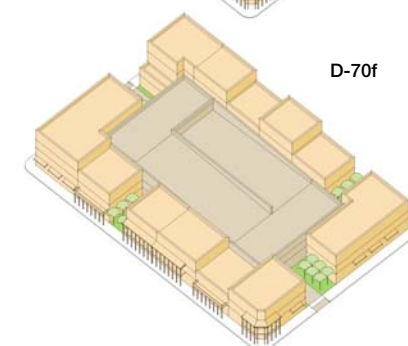
D-70 Typical block types.
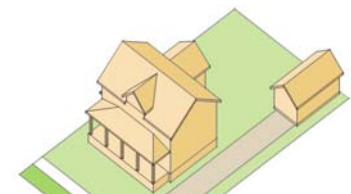
D-71a
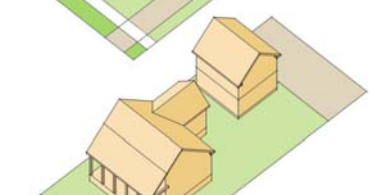
D-71b

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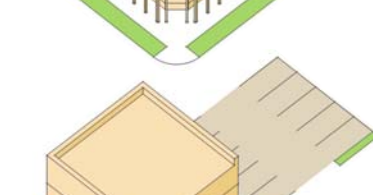
D-71g

D-71 Inventory of building types.
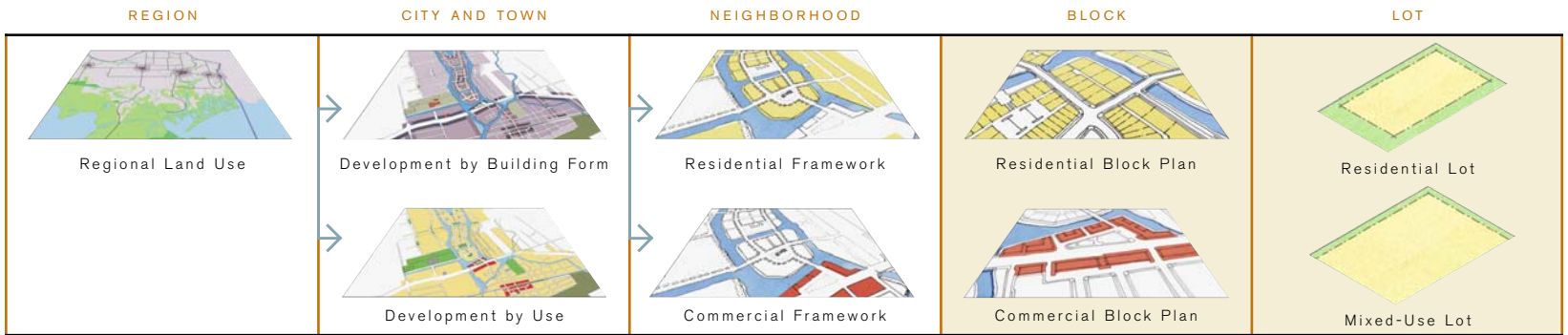
MIXED-USE BLOCKS

>> Plan for a range of use and building types.

>> Provide flexibility as uses may change over time in response to changing market conditions.

>> Provide service in the center of the blocks with an alley or central service court.

>> Base dimensions on the existing patterns in the community.

>> Establish setbacks based on local precedents.

>> Ensure that the relationship between the front facade of buildings and the public right-of-way is appropriate for the use (for example, a commercial use might open directly onto a 15- to 20-foot-wide sidewalk, while a building with ground-floor residential might open to a front yard and a narrower sidewalk).

>> Locate civic and institutional buildings on prominent sites, related to civic open space. The scale of buildings should be compatible with the existing character of the area. Create a dignified setting in order to provide a landmark for the community.

>> Group institutional buildings to create maximum efficiency when possible. For example, a school with playgrounds should be related to a community center for after school activity, to a library, and to other services.

>> Ensure that block types can support a diverse range of building types.

Small-scale development blocks include a mix of single-family houses, duplexes, small apartment houses, and live/work housing with the option of a corner store. Servicing for the block is via alley with individual parking and access to lots.

Medium-scale development blocks include a wider range of commercial and business uses with larger scale housing. Parking is centralized in a parking lot and in tuck-under parking for mixed-use buildings.

Larger scale development can be accommodated in blocks that have a central parking structure.

D-70 Typical Block Types
Typical block demonstrating flexibility and illustrating different scales and types of development.

D-70a
Small-scale residential neighborhood with front-loaded lots.
D-70b
Small-scale residential neighborhood with rear-loaded lots.
D-70c
Mixed-density residential block.
D-70d
Small-scale mixed-use block.
D-70e
Mixed-use block with surface parking.
D-70f
Higher-density block with structured parking.

D-71 Inventory of Building Types
Inventory shows relationship of building types to public space.

D-71a
Front-loaded single-family house.
D-71b
Rear-loaded single-family house.
D-71c
Rear-loaded, small multi-family house.
D-71d
Rear-loaded apartment.
D-71e
Neighborhood-scale mixed-use building on lot.
D-71f
Urban center mixed-use building with surface parking.
D-71g
High-density mixed-use building.

RESOURCES

BOOKS AND ARTICLES

Barnett. Jonathan. *The Fractured Metropolis: Improving the New City, Restoring the Old City, Reshaping the Region.* New York, NY: HarperCollins Publishers. 1996.

Downs, Anthony. *New Visions for Metropolitan America.* Washington, DC: Brookings Institution Press. 1994.

Kunstler, James Howard. *Home from Nowhere: Remaking our Everyday World for the 21st Century.* New York, NY: Simon & Schuster. 1996.

Nelessen, Anton C. *Visions for A New American Dream: Process, Principles, and an Ordinance to Plan and Design Small Communities.* American Planning Association. 1994.

ONLINE RESOURCES

Barnes, Kent B. et al. "Sprawl Development: Its Patterns, Consequences, and Measurement." Center for Geographic Information Sciences. chesapeake.towson.edu/landscape/urbansprawl/download/Sprawl_white_paper.pdf

"Green Communities" U.S. Environmental Protection Agency www.epa.gov/greenkit/historic.htm

"Land Use Evaluation: Evaluating How Transportation Decisions Affect Land Use Patterns, and the Economic, Social and Environmental Impacts That Result." Victoria Transport Policy Institute. www.vtpi.org/tdm/tdm104.htm

Overview of Land Use and Transportation Interactions www.uwm.edu/Department/CUTS/lu/lu-2.pdf

Potential Patterns of Agricultural Land Development (example from the Towns of Hopewell and Seneca) www.co.ontario.ny.us/planning/acrobat/projects/520/workbook/section2.pdf

Rural Land Uses and Development Patterns (example of county-wide strategies from Kitsap County, Washington) www.kitsapgov.com/boards/ElementC.pdf

Schwarzman, Nat. "New Orleans, As It Is." Community Arts Network Reading Room. www.communityarts.net/readingroom/archivefiles/2006/04/new_orleans_as.php

"Toolbox for Regional Policy Analysis: Land Development Patterns" U.S. Department of Transportation Federal Highway Administration www.fhwa.dot.gov/planning/toolbox/land_develop_overview.htm

What methods will help ensure that the plan gets implemented?

Implementation should be a central topic from the outset of the planning process. By engaging a broad cross-section of individuals and constituencies in the process from the beginning, implementation will already be underway as the emerging plan will be supported by those who have become invested in its success. If the market research and infrastructure analyses are conducted effectively, the plan will be a practical response to your community's needs. By considering funding as you plan, you can orient the plan to take advantage of these resources.

A plan can be much more than just a method of deciding how and where to use the resources and funding your community has already identified. Planning should be an entrepreneurial effort in which the creative ideas and vision that earn community consensus can be powerful enough to attract investment and funding.

Planning gets implemented in four basic ways: regulations, requirements, incentives, and direct investment. The power to use these often rests with different levels of government and is independently exercised by neighboring jurisdictions. Often in Louisiana, implementation tools are not coordinated with planning, or with each other. To be effective in implementing plans, it is important to understand each implementation approach and where the authority for it resides. Your community should also take measures to ensure that close coordination occurs among state agencies, regional and local planning entities, and developers on projects within your community's jurisdiction.

Implementing plans also requires well-informed, creative, visionary, focused leadership. If your community does not already have an appropriate, strong, active, innovative entity to implement your plan, create a new one composed of those most involved in the planning process. Their sole mission should be to ensure that each step of the plan is implemented in keeping with the community's vision.

REGULATIONS

Local government typically has the authority over land-use regulations within its boundaries. Some regulations, particularly environmental regulations, may be mandated at the state or federal level. Regulations involve setting up rules that prevent someone from doing something (for example, building a manufacturing plant in a residential neighborhood) or control how they do it (for example, specifying how far buildings should be set back from the street). Regulations, designed to guide new projects in a way that is consistent with the community's plan, are a reactive method to managing development.

Crafting regulations that are consistent with planning can be tricky. Well-designed regulations will make it easy for developers and builders to do what your community's plan calls for and make it hard for them to do otherwise. This seems intuitive, but it is not. Many plans, for example, call for urban "infill" development in existing urban residential neighborhoods. But if the residential development code imposes suburban-style setbacks and parking provisions, infill will require exceptions to the rules, making it costly and time-consuming for developers and discouraging them from doing infill.

Regulation covers a broad array of planning implementation tools. The most common are zoning (by use or physical design) and subdivision ordinances. Variances are typically allowed to any rule, which means a plan and its regulations are only as good as the people – whether they are appointed or elected – who make the final determination: Is a variance a reasonable exception to a regulation, or does it undercut the intent of the plan? Although on their face regulations and requirements (described later in this section) can increase costs, they often also increase returns by increasing marketability. A transparent regulatory system can also decrease costs by expediting permitting.

RESOURCES

BOOKS AND PERIODICALS

American Planning Association. *Planning and Urban Design Standards.* Hoboken, NJ: John Wiley & Sons, Inc. 2006. See Part 6: Implementation Techniques, pp. 553-670; and Resources, pp. 689-693.

Duany, Andrés and William Wright, Sandy Sorlien et al. *SmartCode & Manual.* New Urban Publications Inc. The manual, the complete SmartCode in electronic, editable format, and information on implementation seminars and consultants are all available online at www.PlaceMakers.com or can be ordered from New Urban Publications, Inc. at 607-275-3087.

Emerson, Chad. "Making Main Street Legal Again: The SmartCode Solution to Sprawl." ExpressO Preprint Series. Working Paper 954.
law.bepress.com/expresso/eps/954

ASSOCIATIONS, AGENCIES AND PROGRAMS, AND REGULATIONS

Federal and State Funding Opportunities
www.louisianaspeaks-parishplan.org/Resources_Partners.cfm

Home Investment Partnerships Program
www.hud.gov/offices/cpd/affordablehousing/programs/home

Louisiana Assistance Resource Center
Searchable database of grants, loans, technical assistance, funding   www.doa.state.la.us/arc

Louisiana Community Development Block Grant Program
State of Louisiana Office of Community Development
www.state.la.us/cdbg/cdbg.htm

Louisiana Recovery Authority
www.lra.louisiana.gov

New Markets Tax Credit Program
U.S. Department of Treasury
www.cdfifund.gov/what_we_do/programs_id.asp?programID=5

Non-Governmental Funding Opportunities
www.louisianaspeaks-parishplans.org/Resources_Funding.cfm

State Housing Finance Programs
Louisiana Housing Finance Agency
www.lhfa.state.la.us/programs/homeownership/first_time_homebuyer.php

The Gulf Opportunity Zone Act of 2005
Technical explanation available at led.state.la.us

The Louisiana Gulf Opportunity Zone Business Guide
gozoneguide.com/story_13.html

The Road Home Program. Administered by the Louisiana Office of Community Development
www.road2la.org

U.S. Department of Agriculture Rural Housing and Community Facilities Programs
www.rurdev.usda.gov/rhs

MASTER PLANS

The only plan type that is defined by statute in Louisiana – and thus has the force of law – is the master plan (often called a comprehensive plan).

Municipalities in Louisiana are required by State statute to prepare a master plan if the municipality enacts land use controls and/or creates a planning commission. The master plan is supposed to be considered when planning public facilities, parks, roads, and municipal utilities. The State of Louisiana is required to consider local master plans when undertaking actions that affect the municipality.

Your community's municipal planning department may prepare a master plan or it may contract with an outside planning consultant to do that work. Either way, the process should include a broad-based, inclusive public participation component in order to develop community consensus. Typical elements of a master plan include:
>> Land use

>> Transportation (roads and transit)

>> Community facilities (schools, parks, municipal buildings)

>> Public utilities (water, sanitary sewer, storm sewer)

>> Housing

>> Economic development

>> Environmentally sensitive areas

>> Historic and cultural resources

>> Capital improvements budget and implementation

Master plans should be updated every five years with public input.

REGULATING CODES

Regulating codes provide specific standards and rules for the development of individual properties or groups of properties and how they relate to adjacent properties and streets. Regulating codes include:
>> Zoning ordinances

>> Subdivision ordinances

>> Overlay districts

>> Building codes

>> Form-based codes

>> Pattern books

Zoning and subdivision ordinances have been the primary tools for land use regulation in the U.S. since the 1920s when the U.S. Department of Commerce produced the Standard Zoning Enabling Act. States provide the enabling legislation for land use controls, but pass the control and administration to local municipalities. Beginning in the 1990s, form-based regulations, based on Smart Growth and New Urbanist principles, have emerged as fully-fleshed out alternatives to traditional use-based (Euclidean) zoning. A number of firms now specialize in developing effective new codes.

Conventional zoning ordinances codify the intent of the master plan. A zoning ordinance has two basic elements – the written regulations and the official map. The official map divides the municipality into land-use districts, such as the following:
>> Residential (in several densities, from single-family to multi-family)

>> Commercial (retail, office)

>> Institutional (schools, colleges, hospitals)

>> Open space (parks, preserves)

>> Industrial (light and heavy)
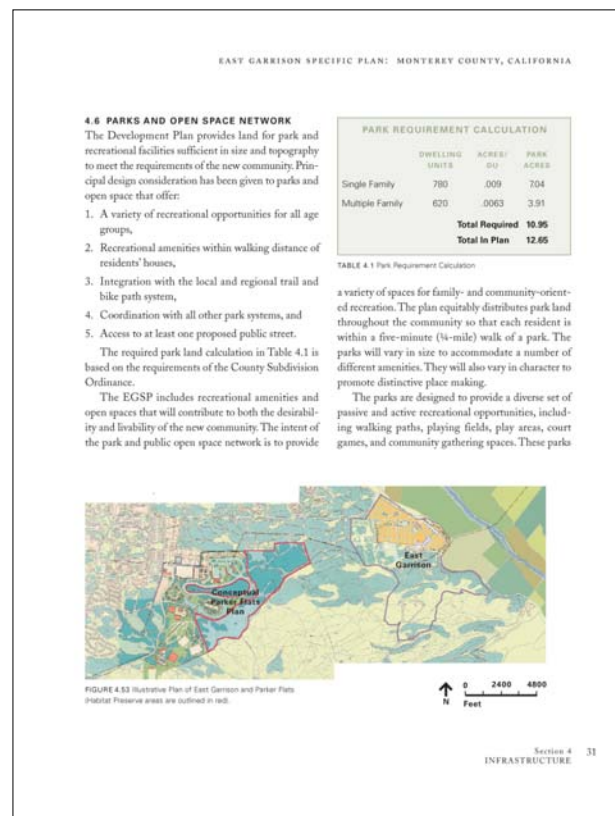
E-1 East Garrison, CA: This page from the East Garrison Specific Plan, a master plan for a new town on the site of the former Fort Ord in Monterey County, addresses (through a combination of text, images, and data) how the parks and open space network proposed for the new town will meet the requirements of the County Subdivision Ordinance.

Planning gets implemented in four basic ways: regulations, requirements, incentives, and direct investment. The power to use these often rests with different levels of government and is independently exercised by neighboring jurisdictions. Implementing plans requires well-informed, creative, visionary, focused leadership.

The regulatory text of the zoning ordinance specifies permitted uses within each zoning district as well as height, massing, density, setbacks, and parking requirements. Finally, the zoning code will lay out enforcement, appeal, and amendment procedures.

Subdivision ordinances regulate the division of land for building and development purposes. The ordinances typically contain technical guidelines for lot sizes, streets standards, utility locations, and topographic and environmental considerations. They also control the provision, maintenance, and ownership of infrastructure.

Overlay districts are particularly useful in situations where the vision for the future of a specific area cannot be realized within the provisions of the conventional zoning or the comprehensive plan guidelines. Overlay districts do not replace the zoning ordinance. Instead, they require more stringent design standards or allow more varied uses.

Inclusionary zoning supports the creation of mixed-income communities and ensures an adequate supply of workforce housing by requiring all developments of a certain size to set aside a specified number of units for rent or sale at affordable prices.

Form-based codes have been developed in recent years for two reasons. First, although zoning ordinances and subdivision ordinances are prescriptive in terms of what uses and densities are permitted, they do not deal well with the more sensitive urban design aspects of community building. Second, standard zoning and subdivision ordinances are often hundreds of pages long with few illustrations to convey actual intent. They are hard to understand and interpret. The final built result is often unsatisfactory, even though it conforms to the rules.

The most prevalent form-based code is the illustrated SmartCode using Smart Growth and New Urbanist principles. In just a few pages, the intent, purpose, and requirements of the standard zoning and subdivision ordinances are conveyed in easy to use diagrams and sketches with minimal text.

The SmartCode regulates the regional scale all the way down to the details of individual buildings with a simple, coherent system. It is of benefit to the community in planning because it:

>> Integrates the design process across professional disciplines.

>> Integrates a range of zoning categories called transect zones that range from the wilderness to the urban core and that apply equally to new development and the infill of urbanized areas.

>> Integrates methods of environmental protection, open space conservation and water quality.

>> Integrates subdivision, public works and transfer of development rights (TDR) standards.

>> Integrates architectural, landscape, signage, ambient, and visitability standards.

>> Integrates protocols for the preparation and processing of plans.

>> Provides greater clarity and more specific guidance than conventional zoning, streamlining the approval process.

>> Encourages specific outcomes through incentives, prescriptions, and prohibitions.

>> Provides a range of standards that minimize the need for variances.

>> Generally increases the range of options over those allowed by conventional zoning codes.

SMARTCODE & MANUAL

Includes the complete SmartCode v8.0
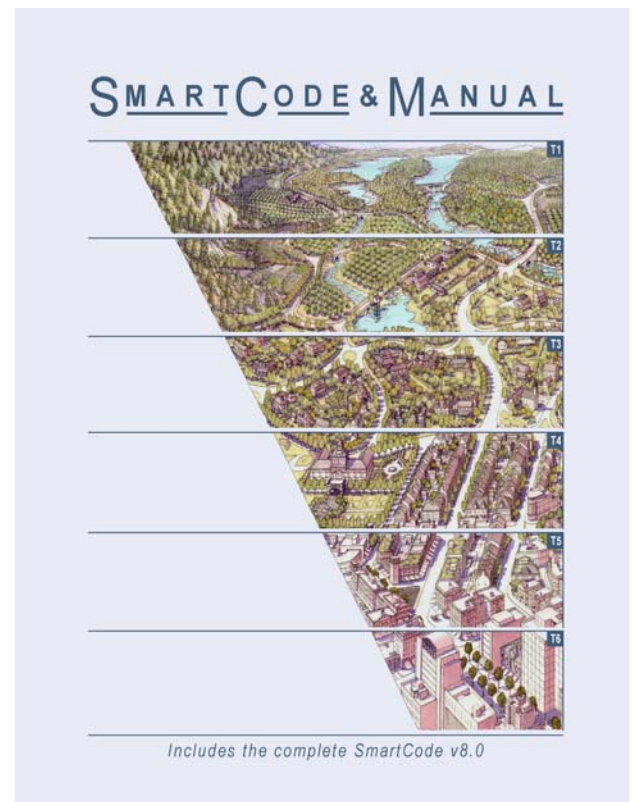
E-2 The SmartCode is one example of a form-based code which describes the desired physical properties of development. It is available in downloadable form, free of charge, at: www.placemakers/info/smartcode.html

Pattern books take form-based codes one step further by recommending architectural styles and landscape standards that complement existing vernacular styles. Pattern books can be developed for individual developments, neighborhoods, cities, or even regions (such as the Louisiana Speaks: Pattern Book). Many nineteenth and early twentieth century American neighborhoods were built using pattern books. A pattern book has the following elements, all based on rigorous investigation of historic vernacular precedents in the particular community:

>> Community patterns

>> Architectural patterns

>> Landscape patterns

Pattern books can be prepared for residential and commercial buildings. It is important to involve local builders, architects, landscape architects, developers, and municipal officials in the development of a pattern book for your community in order to incorporate local practices and preferences and to ensure acceptance of the recommendations.

REQUIREMENTS

Closely related to regulations are requirements that builders and developers meet certain standards, provide certain amenities, or mitigate certain costs to the community. Requirements typically come in the form of building or design standards (regarding engineering, architecture, lighting, signage, streetscape, and open space preservation, for example) or performance standards (regarding impacts on traffic, sewerage, surface runoff, and so forth). Requirements are usually enforced through permitting, design review or site-plan review – all mechanisms that your community can institute as part of its approval process for development. Requirements are controlled at the local level and any variance or exception to the requirement must be obtained through your community's stipulated review procedure.

Building codes regulate the construction and occupancy of buildings. They specify minimum standards for materials, enclosures, structural elements, plumbing and electrical systems, fire and safety provisions, hazardous materials, and accessibility requirements. Building codes may be adopted and enforced at the municipal, parish, or state level.

In 2005, Louisiana adopted the International Building Code (IBC) and International Residential Code (IRC). These codes cover every aspect of building construction and specify hardening and structural safety techniques based on potential exposure to high winds, airborne debris, and flood. The IBC and IRC will go into effect across Louisiana beginning in 2007. The codes themselves are available for purchase from the International Code Council at www.iccsafe.org and they should be made available as a local resource to builders through municipal and parish building inspection offices.

To aid with implementation of the new IBC/IRC requirement, the Louisiana Recovery Authority is funding support and training for local building inspectors. For more information on the program, contact the LRA.

Impact fees are payments assessed on new developments to help offset costs that would otherwise be passed on to the community in order to increase capacity of existing roads, infrastructure, and/or public services. Impact fees should be calculated based on a rational, standardized formula, and fees should actually be used to mitigate development impacts, rather than going into a general fund.
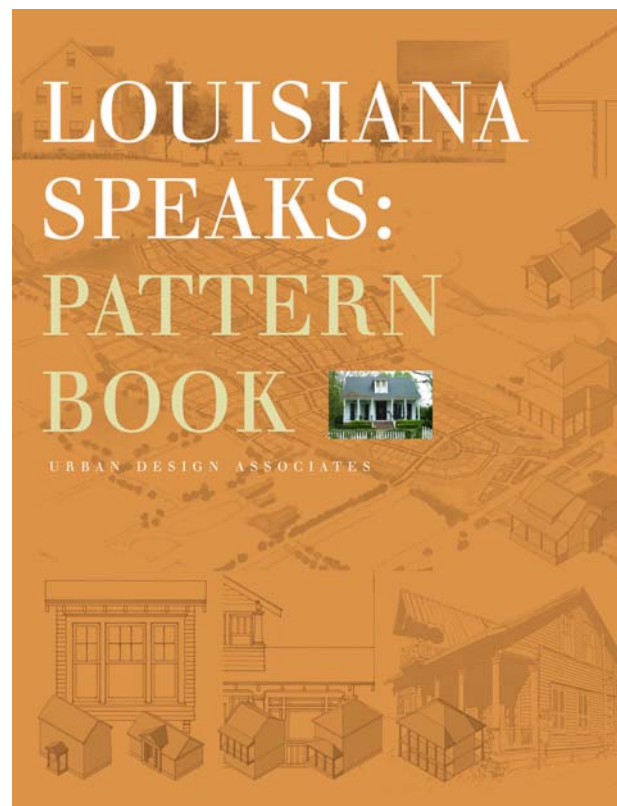
E-3 Pattern books such as the Louisiana Speaks Pattern Book provide guidance for building designs that complement existing vernacular architecture.

INCENTIVES

If the risk associated with certain projects is too great for the market to attempt on its own, or if a particular project is a linchpin to a plan's success, a certain amount of "pump priming" may be warranted. In such cases, incentives can help get the priority items of a plan moving. Incentives offer direct or indirect assistance to developers or builders. These might come in the form of zoning bonuses that allow greater-than-standard heights/density, tax abatements or through Tax Increment Financing (TIF) or Transfer of Development Rights (TDR). Incentives may be crafted at any level of government.

Zoning bonuses encourage specific qualities or attributes in a development by waiving specific requirements of the zoning ordinance. For example, to encourage affordable housing the developer might be granted a 20 percent increase in density or height by making 20 percent of the total units affordable units.

Tax abatements encourage investment in areas which are good for the future of the community, but which are not currently perceived to be marketable locations. In such situations, the annual real estate tax is either reduced or forgiven for a fixed period of time, usually three to five years.

Tax Increment Financing (TIF) provides funding for projects by borrowing against the future tax revenues to be generated by the investment. It is the increment over taxes, based on current property value, that is used in the calculation. This represents a commitment on the part of the local jurisdiction to invest in a specific area rather than have increased tax revenues for the whole jurisdiction.

Transfer of Development Rights (TDR) is an important tool for protecting the natural environment by allowing the entitled development capacity of an area which would be better preserved in its natural state to be transferred to a more appropriate location which is not entitled. The increased value from the proposed development serves as the basis for the purchase price of these development rights. TDRs can also be a useful way of correcting problems created by previous planning and zoning decisions.

DIRECT INVESTMENT

Finally, the public sector can make direct investments. Your community might consider public-private partnerships that assemble land for development, offer space for private lease in public facilities, or choose to participate directly in joint development projects.

Most frequently, public sector direct investments consist of infrastructure development and public amenities such as roads, sewers, bridges, parking garages, ports, airports, and parks. All levels of government engage in these types of direct investment; indeed, it is a primary responsibility of government. Sound, coordinated planning allows governmental bodies to maximize the efficiency and effectiveness of these investments. This is also the one area where regional planning is mandatory in the U.S. The decision-making authority for federally funded transportation projects in any metropolitan area that has more than 50,000 people resides primarily with regional planning agencies [Metropolitan Planning Organizations (MPOs)]. Web addresses for MPOs in South Louisiana are listed in the Resources column of this section of the Toolkit.

REVIEW BOARDS

Your community may already have – or choose to create – various types of review boards to ensure that the plan is consistent with the community's stated goals for development and that the built project is consistent with the approved plan.

A public commission, whose membership is appointed, may be created to set priorities, monitor public planning efforts, and review proposed developments. Membership typically consists of a mix of citizens, some with professional planning credentials and experience and others, without such credentials, but who represent the views and concerns of the public at large.

E-4 Critical, sensitive areas can be preserved using TDRs.

Planning and zoning boards have a similar function, but often include staff members with professional expertise who can make recommendations to the board. Reviews can be done in a number of ways, including by a local administrator or by the planning commission.

Architectural and design review boards include professional planners, architects and landscape architects who provide detailed, technical review of the designs for proposed projects.

LONG-TERM LEADERSHIP FOR PLANNING AND DEVELOPMENT

The most important factor for successful long-term leadership for community planning and development is to have an informed team. Elected and appointed officials must be knowledgeable about the impact of design on people and the environment and have access to the newest community planning techniques and tools. It is also essential to have municipal planning and development staff and outside consultants who are competent and credentialed. Hire the best. Continuing education in planning should be a requirement of municipal service. Excellent regional and national training programs, seminars, and/or other resources for municipal officials and staff are available through:

>> Parish, regional, and state planning agencies

>> American Institute of Architects (AIA)

>> American Planning Association (APA)

>> American Society of Landscape Architects (ASLA)

>> Congress for the New Urbanism (CNU)

>> Mayor's Institute on City Design

>> Smart Growth America

>> Smart Growth Leadership Institute

>> The Center for Planning Excellence

>> The Seaside Institute

>> Universities

>> Urban Land Institute (ULI)

Community forums on design as well as design competitions for specific projects will heighten participation by citizens in community planning. Celebration of well-designed projects and design award programs are also excellent techniques to keep design issues in the public eye and to instill community pride. The most livable communities also have the best informed officials and citizens.

E-5 Interior of a Katrina Cottage which was designed as an alternative to FEMA trailers in a planning charrette and then developed as a prototype for affordable housing. For more information, log onto www.katrinacottages.com

What financing and funding programs are currently available?

A variety of funding programs and sources are available to the public (cities, parishes, and government agencies), private sector (private and non-profit developers), and individuals and families in the building or rehabilitation of homes and communities throughout the State of Louisiana. Some of the programs and incentives, such as the Road Home and the provisions of the Gulf Opportunity Zone Act of 2005, are in direct response to Hurricanes Katrina and Rita. Other programs and funding sources have been supporting affordable housing in the State for many years. The information which follows will help identify some of the incentives, programs and tools that may be useful in both near-term and long-term development and redevelopment efforts. Many of the programs are complex with various eligibility requirements. For that reason, users of this Planning Toolkit are strongly advised to seek additional information on programs that may be of relevance or interest, starting with the web site resources provided.

E-6 The Lowe's Katrina Cottage model is now available in Louisiana.

Financing and funding programs exist at the federal, state, and local levels. Many of these are housing-related programs. These are summarized in the matrix on page 57. To highlight just a few of these programs:

The Road Home program – the largest single housing recovery program in U.S. history – was developed by the State of Louisiana to help residents get back into a home or apartment as quickly and fairly as possible. Eligible home owners affected by Hurricanes Katrina or Rita may receive up to $150,000 in housing recovery assistance. In addition, the Road Home program will loan funds to restore and construct thousands of rental properties through its Small Rental Assistance and Piggyback Tax Credit programs. More information can be found at: www.road2la.org/about-us/default.htm

The Gulf Opportunity Zone Act of 2005 ("GO Zone Act"), establishes federal tax incentives and bond provisions for economic rebuilding in the areas devastated by Hurricanes Katrina and Rita. While the entire State of Louisiana is part of the Hurricane Katrina Disaster Area, the provisions of the GO Zone Act apply only to a limited number of Louisiana parishes, defined as the "Core Disaster Area" or "Go Zone."

The Louisiana Housing Finance Agency also offers a variety of specific homeownership and multi-family rental housing development financing programs. These are enumerated in the matrix at right.

Locally administered housing programs include the HOME Investment Partnership Program, the largest federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. The program allows state and local governments to use HOME funds for grants, direct loans, loan guarantees or other forms of credit enhancement, rental assistance or security deposits. The American Dream Downpayment Initiative (ADDI) aims to increase the homeownership rate, especially among lower income and minority households, and to revitalize and stabilize communities. ADDI helps first-time home buyers with the biggest hurdle to homeownership: the downpayment and closing costs.

Community Development Block Grants (CDBG) are awarded by HUD to entitlement community grantees to carry out a wide range of community development activities directed toward revitalizing neighborhoods, economic development, and providing improved community facilities and services. Grantees must give maximum feasible priority to activities which benefit low- and moderate-income persons, and/or carry out activities which aid in the prevention or elimination of slums or blight.

For an extensive list of funding opportunities, consult these online resources and lists:

Overview of Funding Opportunities. This page on the Louisiana Speaks web site provides an overview of funding opportunities with links to several reports as well as the funding lists described below. You can also access the individual funding lists directly through the links which follow each list's description. www.louisianaspeaks-parishplans.org/Resources_Overview.cfm

Non-Governmental Funding Opportunities. This sortable list contains over 430 private foundations and charities with the potential and a desire to fund recovery efforts in Louisiana. www.louisianaspeaks-parishplans.org/Resources_Funding.cfm

Federal and State Funding Opportunities. This list contains links to federal and state agencies that may fund recovery projects in South Louisiana. They are sorted by recovery sector. www.louisianaspeaks-parishplan.org/Resources_Partners.cfm

While these funding opportunity lists are extensive, they are not necessarily exhaustive. As part of your planning process, be sure to contact the potential funding sources of interest to you for the most up-to-date information.

E-7 New mixed-income, mixed-finance affordable housing in a traditional neighborhood.

E-8 Restored house in a neighborhood conservation area which provides financial incentives to home owners.

Housing-Related Funding Programs

	Governmental Entities	Non-Profits	Developers	Individuals	ADMINISTERING GOVERNMENT AGENCY	RESOURCES
THE ROAD HOME PROGRAM					Louisiana Office of Community Development	www.road2la.org/about-us/default.htm
Homeowner Program				✓		
Small Multi-Family	✓	✓	✓			
Low Income Housing Tax Credit Piggy Back Program	✓	✓	✓			
GULF OPPORTUNITY ("GO") ZONE ACT INCENTIVES AND BOND PROVISIONS					Various	led.state.la.us/
Low Income Housing Tax Credit Increases within the GO Zone	✓	✓	✓			
New Markets Tax Credit Increases	✓	✓	✓			
Rehabilitation Tax Credit Increases	✓	✓	✓			
Private Activity Bonds	✓	✓	✓			
Mortgage Revenue Bonds	✓	✓	✓			
STATE HOUSING FINANCE PROGRAMS					Louisiana Housing Finance Agency	www.lhfa.state.la.us/programs/homeownership/first_time_homebuyer.php
The HOME/Mortgage Revenue Bond (MRB) Program	✓	✓	✓	✓		
The Mortgage Revenue Bond Assisted Program	✓	✓	✓	✓		
American Dream Downpayment Initiative (ADDI)	✓	✓	✓			
The Rural Housing Development Program Initiative	✓	✓	✓			
The Low-Income Housing Tax Credit Program	✓	✓	✓			
The HOME Rental Housing Program	✓	✓	✓			
The Multifamily Bond Finance Program	✓	✓	✓			
THE STATE OF LOUISIANA OFFICE OF COMMUNITY DEVELOPMENT					Louisiana Office of Community Development	www.state.la.us/cdbg/cdbg.htm
Community Development Block Grant Program (CDBG)	✓	✓	✓			
LOCALLY ADMINISTERED HOUSING PROGRAMS					U.S. Department of Housing and Urban Development	www.hud.gov/offices/cpd/affordablehousing/programs/home/index.cfm
The HOME Investment Partnership Program	✓	✓	✓			
The American Dream Downpayment Initiative (ADDI)	✓	✓	✓			
Community Development Block Grant (CDBG)	✓	✓	✓			
U.S. HOUSING AND URBAN DEVELOPMENT PROGRAMS					U.S. Department of Housing and Urban Development	www.hud.gov
Self-Help Homeownership Opportunity Program (SHOP)	✓	✓	✓			www.hud.gov/offices/cpd/affordablehousing/programs/shop/index.cfm
Rural Housing and Economic Development Program	✓	✓	✓			www.hud.gov/offices/cpd/economicdevelopment/programs/rhed
U.S. DEPARTMENT OF AGRICULTURE RURAL HOUSING PROGRAMS					U.S. Department of Agriculture Rural Housing Programs	
Rural Housing Site Loans	✓	✓	✓			www.rurdev.usda.gov/rhs/sfh/brief_rhsite.htm
The Rural Rental Housing Guaranteed Loan Program	✓	✓	✓			www.rurdev.usda.gov/rhs/mfh/brief_mfh_grrh.htm
Rural Rental Housing Loans (Section 515)	✓	✓	✓			
FEDERAL HOME LOAN BANK					Various	
Affordable Housing Program (AHP)	✓	✓	✓			
The Community Investment Program (CIP)	✓	✓	✓			
The First-Time Homebuyer Program (FHP)	✓	✓	✓			
The Predevelopment Fund	✓	✓	✓			
Economic Development Program (EDP)	✓	✓	✓			
Economic Development and Growth Enhancement Program (EDGE)	✓	✓	✓			

How does the Planning Toolkit relate to other planning efforts in South Louisiana?

PLANNING APPROACHES

The ideas and techniques presented in the Planning Toolkit were collected from many sources, especially from the planners who led the many Louisiana Speaks programs. In their efforts to plan safer, stronger, and smarter, these experts drew upon the most progressive approaches to every aspect of community planning.

While each planning approach has its own particular focus, collectively they bring greater cohesiveness and completeness to planning efforts. In a nutshell, these approaches include:

>> **New Urbanism** which revives traditional techniques for building beautiful villages, towns, and cities that reflect local culture, while using tools that provide consistent and clear methods for guiding the physical form of communities.

>> **Smart Growth** which ties land use planning to transportation and other infrastructure, reducing dependency on automobiles and relieving strain on municipal finances.

>> **Sustainable Design** which advocates the responsible and cost-effective use of natural resources.

>> **Universal Design** which calls for creating places that are accessible to all persons.

All of these approaches call for engaging citizens in the creative process of planning. (See Section C: Tools for Successful Planning for more detail about these planning approaches.)

PARISH RECOVERY PLANNING

In November 2005, the Louisiana Recovery Authority (LRA) began working with FEMA's ESF-14 division to establish Long-Term Community Recovery (LTCR) teams. These addressed parish-level recovery needs in the 26 most heavily impacted parishes in Louisiana. The teams, composed of experts in economic development, engineering, coastal issues, environmental issues, architecture, landscape architecture, and planning, worked directly with local officials and stakeholders to develop parish-level recovery plans.

In January 2006, the LRA and FEMA hosted Louisiana Recovery Planning Day. It provided Louisiana citizens and community organizations with an opportunity to have a direct voice in the recovery planning effort for their parishes. More than 3,000 citizens participated in 30 open houses held throughout Louisiana, Georgia, Tennessee, and Texas.

The resulting LTCR plans describe each parish's recovery vision, needs, goals, and potential recovery projects, defined by local stakeholders and residents. These plans served as a baseline for developing South Louisiana's regional vision. They also:

>> Provide the parishes with a framework for evaluating, coordinating, and prioritizing their local recovery efforts.

>> Contain action-oriented menus of key projects to be used by local, state, and federal governments to inform critical funding and resource allocation decisions.

>> Identify key projects of high value in jump-starting local long-term recovery. Log onto *www.louisianaspeaks.org* for information about these projects.

Subsequent local planning efforts should use the data and projects generated through the Parish Recovery Planning process as a foundation. The LTCR planning team created a dynamic, interactive, online Parish Recovery Planning Tool to facilitate ongoing recovery planning, planning management, and project implementation and to support transparent, community-driven planning.

F-1 Demonstration charrettes were held in three distinctly different locales, each with its own set of urban conditions.

DEMONSTRATION CHARRETTES

As part of the Louisiana Speaks program, three demonstration planning and design workshops were conducted by Duany Plater-Zyberk & Company during February and March 2006. Held in three locations in South Louisiana, each with a different urban condition, these charrettes showed that the same method can be used effectively by very different communities.

Some themes were common to all three demonstration charrettes:

>> All three communities had serious challenges before the hurricanes. These challenges needed to be addressed if the communities were going to flourish.

>> When faced with a choice of a) returning to the immediate pre-Katrina/Rita form of the community, b) returning to what residents perceived as "the best of days," or c) moving to a new "21st century" form, all three communities chose the forward-looking option.

>> The need for flood and storm protection at every scale of development was one of the highest priority issues identified by participants.

>> The use of design alternatives facilitated the making of difficult choices.

>> Key recommendations were immediately turned into local government resolutions at the conclusion of the charrettes.

The charrette process was the same in all three locations. First, extensive research was conducted into local conditions, key constituencies were identified, and a public relations program was devised to ensure broad-based participation. Then, the charrette – an intense, eight- to ten-day working session – was held. During the charrette, the planning team interacted with the community to understand existing conditions, key issues, and develop and test these design alternatives to resolve them. Participants identified their preferred alternatives which were further evaluated and refined as the process continued.

The strategic plans which emerged from these charrettes provided the communities with a means of responding to the issues before them. At the conclusion of the charrettes, the local governments voted to support a set of resolutions based directly on recommendations from the process. A form-based zoning code (SmartCode) was provided to enable each local government to manage the physical form of its plan.

In each parish, there were different outcomes:

>> Lake Charles now has a plan for its downtown, is seeking implementation funding, and is extending the same principles to a parish-wide planning effort.

>> Vermilion Parish is considering implementing the charrette plans. Abbeville hopes to change its road system and develop a new neighborhood. Erath is seeking funding for a new neighborhood at the northern edge of town; Delcambre for its port and a downtown park.

>> St. Bernard Parish incorporated many of the recommendations into its planning process, which was already underway. By providing alternatives, the charrette helped build consensus on a strategy for creating healthy development patterns and new open space.

THE REGIONAL VISION

Calthorpe Associates and Fregonese Calthorpe Associates began a long-range plan for South Louisiana early in 2006 that will be completed in 2007. The preliminary results and early stages of the process provide some general guidance for this Planning Toolkit and some insights for the future directions of the State.

The process for developing the regional plan began by assembling an interdisciplinary team of specialists in many fields including geology, hydrology, ecology, engineering, economics, sociology, as well as planning, landscape architecture, and design. Data

F-2 Lake Charles: A unique new downtown on vacant, publicly owned land.

F-3 Abbeville: New development in harmony with downtown landmarks.

F-4 Erath: A new neighborhood contributes to flood protection of the existing neighborhoods.

F-5 Delcambre: Expanded port and festival area provide additional flood protection.

F-6 St. Bernard: Rebuilt neighborhood with canals and natural open space for flood management.

were compiled characterizing the current conditions in the State. An ongoing process of public engagement is soliciting input from a wide range of citizens, civic and political leaders, and professionals from around the State.

In preparation for the Regional Vision Stakeholder Workshops, Louisiana Speaks:
>> Surveyed more than 2,500 randomly chosen residents (including evacuees in 27 states).
>> Analyzed long-range demographic trends.
>> Consulted with regional planning staff.
>> Reviewed past and current planning efforts in South Louisiana.
>> Launched a public outreach effort through newsletters and an interactive web site.

The Stakeholder Workshops brought people from across South Louisiana together for six workshops during July and August, 2006. More than 800 participants converged in Lake Charles, Lafayette, Baton Rouge, New Orleans, Houma, and the Northshore to provide input for shaping the future of the region. Members of local religious, business, non-profit, and environmental communities were invited, as well as key public officials. These full-day public events were an important part of the larger strategy to meld the desires, knowledge, and experience of officials, experts, and citizens into a vision for the future of South Louisiana. In addition, 150 New Orleans neighborhood leaders were interviewed for their input.

Each workshop included three exercises to address key issues: coastal restoration and storm protection, community growth and transportation, and economic development. Preceding each exercise, an expert in the respective field provided background information and directions on how to complete the exercise.

Key Findings. Consensus emerged on many critical issues. Participants:
>> Overwhelmingly supported coastal wetland restoration, leaning towards a strategy that combines natural diversions and water resource management with pipeline conveyance of sediments to stimulate the creation of new coastal wetlands.
>> Favored a shift toward more compact, transit-oriented development patterns.
>> Expressed strong desires for a more prosperous and equitable region.

Participants also called for:
>> Educational reform at all levels (early childhood development through higher education) through a variety of programs, policies, strategies, and funding restructuring.
>> Improved government transparency, coordination among decision-making bodies, and increased regional cooperation across jurisdictional lines.
>> Increased use of ports and waterways through the construction of new multimodal infrastructure investments and the development of international trade relationships.
>> Better support for small businesses and more new entrepreneurship training programs.
>> Strategies and programs to achieve economic and research leadership in industries including coastal science, alternative fuels, and biotechnology.

In fall of 2006, the input from the stakeholder workshops was shaped into several alternative scenarios – alternative possible futures – in consultation with local technical experts and civic leaders. These scenarios have been integrated with priorities identified in the Louisiana Speaks Neighborhood Planning charrettes and Parish Recovery Planning, as well as the Unified New Orleans Plan process. A series of diagnostics was run on the scenarios to test how they perform in terms of storm resiliency, fiscal impacts, traffic congestion, and so forth. In early 2007, a broad outreach effort will culminate in a public-preference vote to help select a preferred scenario.

F-7 Stakeholder Workshops enabled participants to better understand and probe issues of flood and stormwater protection, preservation of natural areas, redevelopment, and economic growth on a regional scale. These discussions helped to identify priority issues and explore possible solutions.

OTHER GUIDANCE AND ONGOING PLANNING ASSISTANCE

Many groups with planning expertise have provided advice and technical assistance both after Hurricanes Katrina and Rita and on an ongoing basis.

Soon after Hurricane Katrina, The Urban Land Institute (ULI) worked with the Bring Back New Orleans Commission to develop a framework for the recovery of New Orleans. The full report is available at *www.uli.org*. Key recommendations include:

>> Diversifying the local economy, building on existing strengths, such as the tourism, music, port, healthcare, and higher education industries;

>> Improving government effectiveness through the creation of independent authorities to obtain and disperse federal funds and oversee the rebuilding process;

>> Supplementing the levees, drainage canals, and pumping stations with increased natural area restoration to improve flood protection;

>> Expanding infrastructure access with increased transit options and with more concentrated development along transit lines; and

>> Rebuilding in a way that balances the city's dire need for affordable housing with the equally pressing need to respect the city's topography.

In November 2005, the American Institute of Architects (AIA) and the American Planning Association (APA) held a joint conference in New Orleans to address regional issues. The conference was conducted under the auspices of the Governor's Office and the Louisiana Recovery Authority (LRA). The National Trust for Historic Preservation and the American Society of Engineers were also sponsors. The conference addressed sustainable development and community planning principles as well as physical and strategic planning from architectural through regional scale. The AIA/APA goals and principles were endorsed by the LRA as a foundation for its Louisiana Speaks planning efforts.

The conference report "Starting Point," is available at *lrrc.aia.org*. In addition to the planning principles, the report also details specific recovery and planning priorities for Orleans, St. Bernard, Plaquemines, St. Tammany, and Jefferson Parishes, as well as more general priorities for other coastal and inland parishes.

In June 2006, the City Planning Commission of New Orleans issued neighborhood planning guidelines for the city's Unified New Orleans Plan process (available at *www.unifiedneworleansplan.org*). It provides a step-by-step, how-to guide for neighborhood planning that includes identifying project leaders and scope, engaging the public in the process, collecting data, and developing project priorities. It also identifies elements that every neighborhood plan should have.

The AIA, APA, and ULI all have offices in Louisiana and continue to provide information resources to planning efforts. Other groups and coalitions working in Louisiana include Tulane University, the University of New Orleans, Louisiana State University, the University of Louisiana-Lafayette and other universities; the various regional planning commissions; CityWorks; Global Green; the Preservation Resource Center; the Center for Planning Excellence; and many others who can provide information and assistance to community planning efforts.

In New Orleans, Lambert Advisory prepared recovery plans for a number of affected neighborhoods; many other neighborhoods pursued their own planning, often working with universities. This work was folded into the Unified New Orleans Plan during the fall of 2006.

"Overall regional design vision is necessary for successful action.... It means seeing the interconnections between, for example, land use and transportation, open space and public space, growth boundaries at the edge of the region and rebuilt inner cities at their core. Where traditional policy analyses tend to separate and obscure these key interconnections, physical design embodies and reveals the links. It provides the common ground around which the different stakeholders in the region can come together for effective action."

Robert Fishman, Professor of Architecture, University of Michigan (from the Foreword to *The Regional City*, p. xvi)

Where can you find other regional and community plans to get ideas and models for developing your community's plan?

Regions and communities across the country have worked through their own particular challenges and created well-conceived, innovative plans for responsible, sustainable growth and development. The plans opposite each make a particular observation about how plans help communities solve problems and capitalize on opportunities. They are, however, only a tiny fraction of the plans created every year in this country. As you prepare to work on your regional or community plan, reach out to planning professionals who can help you identify the best of those plans, particularly those created for places struggling with challenges similar to your own, for fresh ideas and creative solutions.

F-8 Regional Plan: Portland, OR
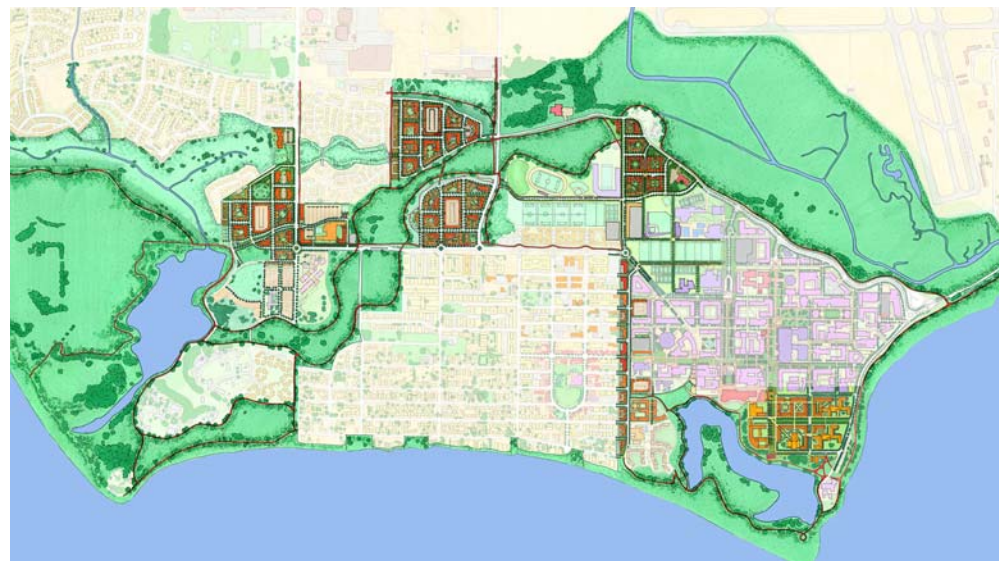
F-9 Town-Scale Plan: UCSB Campus Housing, Santa Barbara, CA

F-8 Regional Plan: Portland, OR
This plan shows how the natural environment establishes a framework for determining optimal areas for development. A multimodal transportation network – highways, rail, and public transit – defines those locations that are advantageous for mixed-use development within the areas that have been identified as appropriate for growth.

F-9 Town-Scale Plan: UCSB Campus Housing Study, Santa Barbara, CA
Natural conservation areas including wetlands, wildlife preserves, and drainage systems can be coordinated to create a major continuous public open space as can be seen in this plan for UCSB Campus Housing. The proposed development areas have been organized as high density neighborhoods located either on currently developed or non-environmentally sensitive parcels of land.

F-10a, 10b and 10c Downtown Plan: Birmingham Downtown Revitalization, Birmingham, AL
By revitalizing the underutilized grayfield and brownfield sites within the most developed part of the region, a more vibrant downtown district can be created. The efficient use of existing infrastructure helps to control the costs associated with the redevelopment. A diverse range of building types and new uses supports the existing development in downtown. The railroad right-of-way and natural features are developed to provide the community with public open space amenities.

F-10a Downtown Revitalization Plan: Birmingham. AL

F-10b Birmingham: Residential neighborhood perspective

F-10c Birmingham: Downtown mixed-use perspective
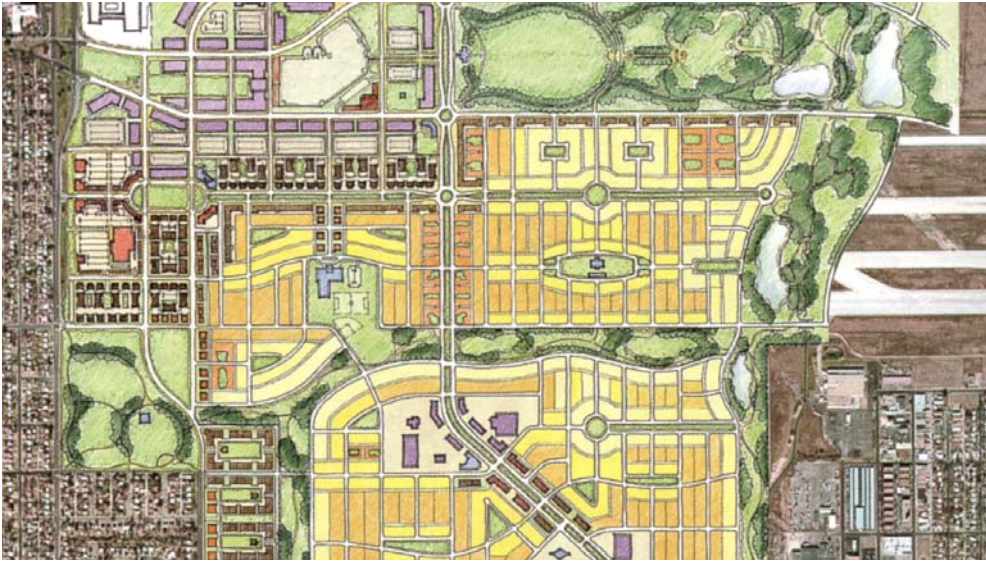
F-11 Neighborhood Plan: Stapleton Airport Redevelopment, Denver, CO
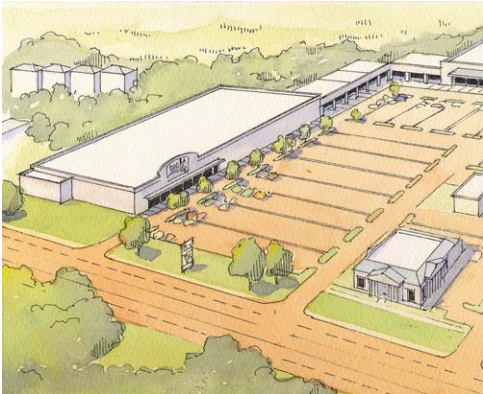
F-12a Block Plan: Ribaut Square, Beaufort, SC (before)

F-12b Block Plan: Ribaut Square, Beaufort, SC (after)

F-13a Lot and Building Design: Key Intersection (before)

F-13b Lot and Building Design: Key Intersection (after)

F-13c Building Design: Key Intersection (before)

F-13d Building Design: Key Intersection (after)

F-11 Neighborhood Plan: Stapleton Airport Redevelopment, Denver, CO
In this plan, you can see how a brownfield site – formerly Denver's principal airport – can be transformed into a series of new mixed-use neighborhoods. "Daylighting" of buried creeks and waterways not only restores them ecologically, it also makes them available for water treatment, storm detention, and human recreation, enhancing the viability and desirability of these new walkable neighborhoods and major employment centers. The scale of this reuse and infill plan will have a major impact on the direction and extent of regional growth patterns.

F-12a and 12b Block Plan: Ribaut Square, Beaufort, SC
Strip malls can be transformed into inviting urban centers as this plan so clearly demonstrates. By introducing streets and public open space, the plan creates a pattern of blocks on which a civic center, mixed-use retail, residential, parks, and public open space flow harmoniously. New, higher density development creates a center for the surrounding residential neighborhoods. The "Buckle Park" in the upper right-hand corner of the plan provides space for community events and an extensive view of the marsh.

F-13a, 13b, 13c and 13d Lot and Building Design: Key Intersection Transformation, Hillsborough County, FL
These before and after eye-level (F-13a and 13b) and aerial (F-13c and 13d) perspectives show how a featureless suburban neighborhood can be transformed simply by introducing a mixed-use center, composed of individual buildings with appropriate aesthetic character and strong street-level visibility, at a key intersection.

| FIGURE	TITLE	SOURCE
A-1	GIS MAP Land Elevation. South Louisiana	URBAN DESIGN ASSOCIATES Pittsburgh, PA
A-2	PHOTO Regional Vision Workshop. New Orleans, Louisiana	LORI WASELCHUK Baton Rouge, LA
A-3	GIS MAP Town Watershed. Covington, St. Tammany Parish, Louisiana	BROWN+DANOS LANDDESIGN INC Baton Rouge, LA
A-4	PLAN St. Bernard Parish, Louisiana	DUANY PLATER-ZYBERK & COMPANY Miami, FL
A-5	PERSPECTIVE Town Square. Arabi, Louisiana	DUANY PLATER-ZYBERK & COMPANY Miami, FL
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B-6	PHOTO Regional Vision Workshop. New Orleans, Louisiana	LORI WASELCHUK Baton Rouge, LA
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C-1	PERSPECTIVE Duneland Village, Indiana	FARR ASSOCIATES Chicago, IL
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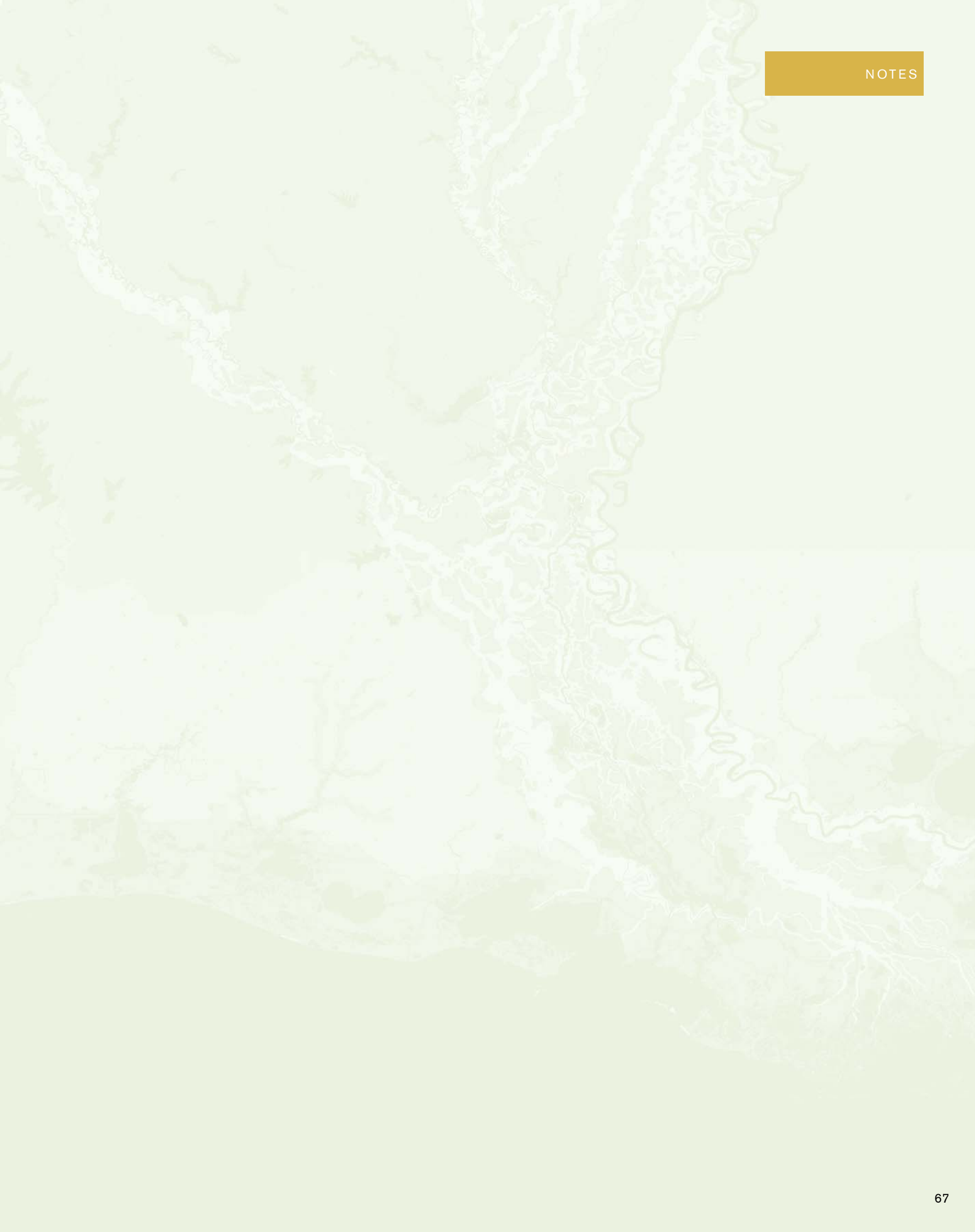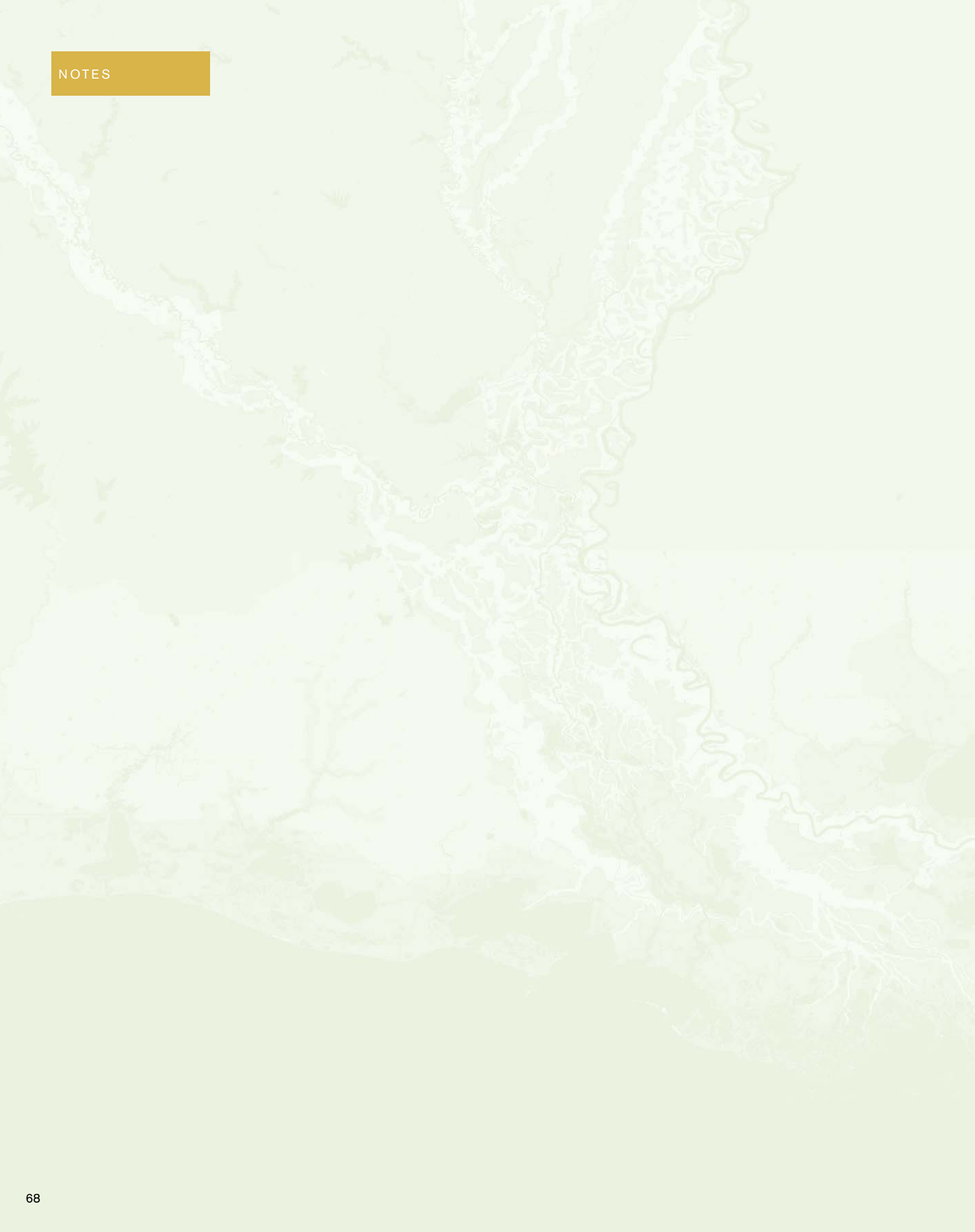
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Four complementary initiatives are an integral part of the Louisiana Speaks program for the recovery of South Louisiana. The Louisiana Speaks Toolkit is a companion document that complements the work done in these initiatives.

THE PARISH RECOVERY PLANNING PROCESS engaged citizens actively in developing their vision, goals, strategies, and a list of high priority, high impact projects to jump start the recovery in their area.

Three demonstration **PLANNING CHARRETTES** were conducted by Duany Plater-Zyberk & Company in three separate locations that have distinctly different urban conditions.

A REGIONAL PLANNING PROGRAM, led by Calthorpe Associates, undertook the development of a long-term vision for Louisiana.

THE LOUISIANA SPEAKS PATTERN BOOK and **TOOLKIT,** developed by Urban Design Associates, form the bridge between these initiatives. These two documents present tools and techniques from both the planning charrettes and the regional vision processes in a form that can be used by communities throughout the state for both rehabilitation and new construction.

For more information on the Louisiana Speaks program for the recovery of South Louisiana visit: www.louisianaspeaks.org

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A LONG-TERM COMMUNITY PLANNING INITIATIVE OF THE LRA

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