



# SUMMARY REPORT

BAY ST. LOUIS  
BILOXI  
D'IBERVILLE  
GAUTIER  
GULFPORT  
LONG BEACH  
MOSS POINT  
OCEAN SPRINGS  
PASCAGOULA  
PASS CHRISTIAN  
WAVELAND

RECOMMENDATIONS FOR REBUILDING THE GULF COAST







# Summary Report

November 2005

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## THE TOWN PAPER

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Diane Dorney  
Editor/Publisher



Dear Friend,

When Governor Barbour asked me to chair the Governor's Commission on Recovery, Rebuilding and Renewal, he said he wanted one important thing: a rebuilding plan worthy of the spirit and character of the people of South Mississippi. I believe the work compiled in this summary report is a magnificent step toward that goal.

When teams of architects, engineers and planners met with Mississippians, their task was staggering. We asked them to spend a week thinking about nothing else but rebuilding the eleven Coast towns devastated by the storm. And boy, did they rise to the occasion. These planners worked around the clock with local leaders and elected officials. They visited the towns and walked the streets amid unparalleled debris and destruction. They met folks who had lost everything. Some of them had lost everything themselves. These were the best minds their profession has to offer, and they were staggered by the task before them. But the courage and resilience of Mississippi's people gave them the inspiration to get the job done.

Since then, designers have continued working with local folks to produce a refined final report that includes plans for all eleven towns and for the entire region. Counties and unincorporated areas factor into these plans, and will be drawing up their own designs to complement the work compiled here. Once we see all the completed plans, citizens can decide what works best for them.

Make no mistake about it – people are excited. They want to see and understand these fine ideas. We have been holding town hall meetings all over South Mississippi, and we continue to meet with citizen's groups every day. We are also reaching out to investors and developers – after all, it's private investment dollars that will make all this happen – and they're excited, too. They know that good planning is an engine of economic growth.

Fortunately, we will never have opportunity like this again. The slate is clean, and we have drawn plans worthy of our hopes and dreams. I hope people will study these ideas carefully, and use them to make their communities as wonderful as they were before – maybe even better.

Sincerely,

Jim Barksdale  
Chairman  
Governor's Commission on Recovery, Rebuilding and Renewal

# A Gulf Coast Renaissance

BY ANDRÉS DUANY

This publication is but a synopsis of the 18 individual reports that have been crafted to guide the rebuilding of the Mississippi Gulf Coast. The writing and illustrations contained herein are technical in nature but presumably self-explanatory. While this paper and the reports can stand on their own merits, it may be helpful if I provide some background to those who must decide what to do with them.

The genesis of this report and its findings was, of course, Katrina, an astounding destructive force which made landfall in Mississippi on August 29, 2005. However, my involvement did not begin with the Katrina of Mississippi but the Katrina of south Florida. For on August 26, just days before Katrina had its way with the Gulf Coast, my hometown of Coral Gables, Fla., was swiped. I had my first inkling that there was something worse out there than the broken trees on my street when the crews who were clearing them abruptly packed their equipment and told me that they were “off to Louisiana.”

A few days later I received a call from Mississippi architects Michael Barranco and David Hardy. They asked me to come to the Gulf Coast to meet with Leland Speed, the Governor’s director of economic development, and Jim Barksdale, the Governor’s chairman of the newly created commission on Recovery, Rebuilding and Renewal, to discuss plans for post-Katrina recovery. So, on September 12 I flew to the coast and after touring the area we discussed how to tackle this monumental task. Later in the day, the Governor arrived very tired after traveling from one area of devastation to the other. He listened silently to the proposal described by Jim Barksdale, and then he turned to me and said: “Go ahead. Do what you do — and do it well.”

We were all exhilarated by the efficiency and trust implied by this simple directive. These attributes became characteristic of the entire process. Without the lightning-fast, decision-making lead from Mississippi’s government, we could not have completed the task before us, which was to set forth plans to rebuild 11 coastal cities and 120 miles of coastal region. In this “go ahead” effort, we went from a handshake to conclusion of an enormous body of work in little over a month.



“These are the first steps of an epic journey. And it is our hope that, in the end, the people of the Gulf Coast will not forever be seen as victims of tragedy, but as a generation of those fortunate enough to have been there for the Mississippi renaissance.”

This, of course, was beyond the capabilities of any one firm; so the first call after the initial meeting was made to John Norquist, president of the Congress for the New Urbanism (CNU), the national new urban planning organization based in Chicago. Norquist and I assembled a team of some of the very best new urban professionals in architecture, regional and community planning, civil and transportation engineering, environmentalism, codes and laws, retail, economics, public process and communications. The CNU, whose members are known for working quickly and on-site with the advice and participation of local people, was ready. It was quite touching to see how so many of the busiest people in the world immediately accepted the call to dedicate a couple of weeks to help their stricken fellow Americans. Such was the magnitude and pathos of the Katrina emergency

that we found we had many more willing than we could accept.

Ultimately, there were to be 110 national team members selected to work with an almost equal number of professional volunteers from Mississippi. Henry Barbour, executive director of the Governor’s newly appointed Commission, worked with his staff to collect the many and disparate community representatives who would join the design teams at the Isle of Capri Hotel in Biloxi from Oct 11 to 18. The majority of the funding was provided by the Knight Foundation —the eleemosynary arm of the Knight-Ridder newspaper chain (owner of the *Sun Herald* of Biloxi); other funding was also provided by Jim Barksdale. With that, the Mississippi Renewal Forum, as it was come to be named, was formed.

The day arrived, three weeks after the handshake, and the several hundred ultimate participants showed up to their appointed rounds. The work schedule, which can be roughly summarized as days of meeting alternating with days of designing, took place for a total of one week. There were 11 separate planning teams, each assigned to a Gulf Coast community and supported by seven additional teams with expertise in various specialty fields. Some of the meetings took place at the affected cities; others brought the citizens and elected officials to the big, incredibly busy studio at the hotel, where they could discuss over the drawing tables. At least one mayor enjoyed staying past midnight and countless other Mississippians became semi-permanent fixtures of the creative chaos.

A chaos, incidentally, that included an intermingling in the halls and cafeterias with hundreds from the volunteer and paid cleanup crews. It was a rare and ennobling instance of physical and intellectual labor having not only shared ends, but shared means.

It is perhaps unnecessary to state that we, the outsiders, were shocked, and in some cases made despondent, by the devastation that we witnessed. I would venture to say that all were touched by the noble resiliency of those who had lost everything. It was not unusual, for example, to ask a serving person at the buffet line after the condition of their home and receive the response: “I lost everything, but it will be all right.” We were, thus, spurred to

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undertake work for 12, 14, and for some, 20 hours a day. Barksdale called us “over-caFFEinated architects.” I think we were also just overwhelmed with trying to make right the lives of so many people we touched that week on the Gulf Coast.

Over the days and nights, everything that needed to be engaged was: The political process, sometimes in disarray, had to be reconstituted; the challenge of meeting housing needs that must be both exceedingly affordable and equally durable; the ambiguous potential of the coming high-rises that had to be evaluated — often with differing responses for each city; the restoration of the pe-

quickly so. One can indeed build anew and one can build better. How much better, though?

There is no doubt that the latter half of the 20th century has badly frayed American communities. The once marvelous, walkable, villages, towns, and urban neighborhoods of our country — places that organically included the richer and the poorer, the younger and the older, places that were not dominated by the car — those places have gradually been replaced by cookie-cutter housing subdivisions, hideous strip shopping centers and soulless business parks. The fine avenues of days gone by have become congested arterial roads. Trailers are the new affordable housing stock. Municipal funds for city parks now purchase asphalt. And so on. It

We found yet another blessing: In addition to the emotional resilience of the people, there was an unusual clarity of vision from the leadership. Apparently, some Americans still know how to respond to great emergency. Perhaps the lumbering bureaucracies of the Federal government are incapable of acting quickly and effectively. Perhaps the scope of what needs to be done resists centralization, but the government in Jackson and the local leadership on the coast, together with a slew of representatives in attendance from national non-governmental organizations, were all hands-on, fast and confident. There was no hesitation in the decision-making with this group.

If such leadership can be sustained, this naturally



destrian character of beachfront Highway 90 having become a brutal highway; the moving of the CSX rail line north and the replacement of it with transit; the attendant development that must support the new transit stations; the casinos in their promising new land-based locations; recovering the viability of the old commercial main streets, which are under assault by the national chains located to the north; and a dozen other major and minor issues that were adjusted to each municipality. These, in much detail, are presented in the individual reports.

The goal that unified the work of so many was the challenge offered by Governor Barbour on the first day of the Forum. His words, that the coast must not only recover but it must do so renewed as a better place than it has ever been, helped us to understand that Mississippi cannot accept the pall of permanent regret. Mississippians must not be forced to pine endlessly for the good old days now lost. Nostalgia for “before Katrina” cannot long be tolerated by a vital society. Indeed, maybe the only justification for the tragedy and the only true healing will be to create a better Mississippi. This is the “Renewal” part of the Governor’s tripartite plan.

It is ironic that a challenge as inordinate as a categorically better future is catalyzed by a vast destruction and that it’s potential for fulfillment is made possible only because of that vast destruction. And, in Mississippi, it is not only possible, but

“Decisions, rather than taking months and years, took hours and days. Those who participated are unlikely to experience such an event again.”

is not necessary here to rehearse the betrayal of promise — the literature of the new urbanism has abundantly documented it.

The problem is not only an aesthetic one; it is no longer even a just social one. It is simply no longer a sustainable living pattern — not in coastal Mississippi or anywhere else. The scarcity of petroleum and consequent rise in its price is permanent. It will catalyze the restoration of communities to what they were historically — places that are traditional, walkable, mixed-use, mixed-income neighborhoods, towns and villages. It is certain that such places will sooner or later arrive everywhere, as all places will molt over time adjusting to this reality. What is so extraordinarily hopeful in Mississippi is that the devastation of Katrina will allow the Gulf Coast to arrive at this inevitable future faster — before anywhere else in the United States. Elsewhere the demolition must still be done, and it will take two or three generations. In Mississippi, it could take less than one. A blessing in disguise, if ever there was one.

beautiful 120-mile coastline can be so thoroughly renewed that there is no question its’ currently dispersed population will return. More important, perhaps, is that talented and well-prepared young people will choose to settle on the Gulf Coast because it is a most pleasant and promising place to live and work. Of course the climate and the sea are great amenities, but that won’t be enough in the years before us. Only places with the kind of communities projected through these reports will thrive. And don’t dismiss the possibility of it happening in the Gulf. The city of Portland, Ore., achieved it. Despite its’ cold, gray weather, Portland, as a result of planning similar to that proposed here, overcame it’s marginal location and it’s poverty such that it is now wealthy with the industries that thrive on talent and youth.

The required quality of life that attracts people who have a choice of where to live and the companies that follow them can and must be the future. It is necessary that the Gulf Coast create jobs beyond

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the now-vulnerable fishing and tourism with its low wages, and the very ambiguous benefits of a gambling industry. Riding the spin-off of the research center at Kessler Air Force Base and the high-tech military contractors at the local college, better jobs must be created.

Are such visions fulfilled? Often not — or at least not to the extent that we would like them to. There is usually too much that needs to change, too much that needs to be demolished before it can be created anew. In addition, there is typically an insufficient sense of urgency. Not often does our stable democracy have cause to take the risk of being visionary. However, the experience of the charrette was that no one, from the Governor to the poorest of citizens without a roof over their heads, saw any reason to project anything other than great vision. There seemed to be something about the magnitude of what needed to be done that cleared the mind and bolstered the spirit. This spirit, which emanated from the local people, affected the 200-plus who prepared the plans and proposals of these reports. Decisions, rather than taking months and years, took hours and days. Those who participated are unlikely to experience such an event again.

We hope and trust that this spirit will continue as long as it is necessary. How long must this be? The Governor has proposed three phases: First, that of Recovery, which is associated with Federal initiatives: the cleanups, the new bridges, the financial arrangements for housing. Virtually simultaneously comes the Rebuilding phase, where the private sector will play the primary role and in which this charrette was engaged. Then, guiding everything, is the Renewal: the vision of a Mississippi which is to be — not the Mississippi that, however beloved, follows others, but one that takes the lead. This process will take a generation or more — and that is perhaps the heaviest burden.

For the time required to achieve the vision will surpass our personal ability to be involved. The task is not only to begin but also to institutionalize the vision so that it survives and transcends us. For this purpose, there are codes to put in place that will be an integral part of the long-range planning effort. And, no less important, the set of reports presented to the Governor's Commission that will join this one in addressing the future of the Gulf Coast in its many other particulars.

These are the first steps of an epic journey. And it is our hope that, in the end, the people of the Gulf Coast will not forever be seen as victims of tragedy, but as a generation of those fortunate enough to have been there for the Mississippi renaissance.

## Forum Brings Hope for Restoring Mississippi's Best Traditions

BY JOHN NORQUIST

It was a great honor and privilege for the Congress for the New Urbanism (CNU) and its members to answer Governor Barbour's call for assistance by organizing a major charrette covering the cities and towns of the Mississippi coast. As the citizens of the Gulf Coast reassemble their lives and communities, CNU designers prepared options for rebuilding neighborhoods that are even stronger and more valuable than before the hurricane.

Flying into Mississippi we immediately witnessed the storm-ravaged communities. The view from the ground was even more grim and heartbreaking. Coastal cities such as Waveland, Pass Christian, and Bay St. Louis were as much as 70 percent destroyed. Others, such as Biloxi and Gulfport, had storm-wrecked neighborhoods to add to stubborn pre-existing issues such as over-scaled casino complexes, underdeveloped downtowns, and traditional character threatened by placeless sprawl.

The Mississippi Renewal Forum, perhaps the largest charrette to date, demonstrated the power of this form of multi-day, multi-disciplinary collaborative planning forum or "charrette," which has been popularized by new urbanists during the past 20 years. A well-planned charrette assembles urban designers, traffic engineers, elected officials and other specialists and gets them all working together — something that doesn't otherwise happen enough.

Taking their cues from the history and traditions of coastal Mississippi, the teams got right to work. Planning that would typically occur for months in the independent offices of many consultants, took place in a very large room in the Isle of Capri during the course of a week.

A planning venture of this size easily could have run into obstacles, but this one didn't. As the charrette's primary organizer, urban designer Andres Duany assembled what he called the "swarm" of dedicated new urban designers. The principles shared by this group helped the teams quickly establish priorities and efficiently produce outstanding work. The resulting set of plans and drawings presented on the



**John Norquist**

final day of the charrette impressed observers such as Blair Kamin, the Pulitzer-Prize winning critic of the Chicago Tribune, who said, "In scope and style, as well as speed, this was a 'make no little plans' effort worthy of Chicago's Daniel Burnham."

The hard work isn't behind us. A whole list of things has to be addressed before Mississippi realizes the promise of renewal: Mayors and other officials have to take projects under their wings, the Mississippi Department of Transportation has to be convinced to create neighborhood-sustaining roads and infrastructure, builders and developers must see the value of creating traditional urbanism and a range of technical issues needs to be addressed, including how to respond to proposed FEMA rules for rebuilding in flood zones.

In response, team members are returning to the cities and towns of Mississippi for public meetings. Codes workshops, sessions organized by the Seaside Institute, and a special one-day program by the Mayor's Institute for City Design are all in the works.

In Mississippi, we found a beautiful state with a diverse population, where climate, culture, and economics all played a role creating a way of life that is unique to the Gulf coast and to Mississippi itself. We took important steps together in beginning to restore what's best about that way of life and we look forward to helping Mississippi come back stronger than ever.



# THE REGION

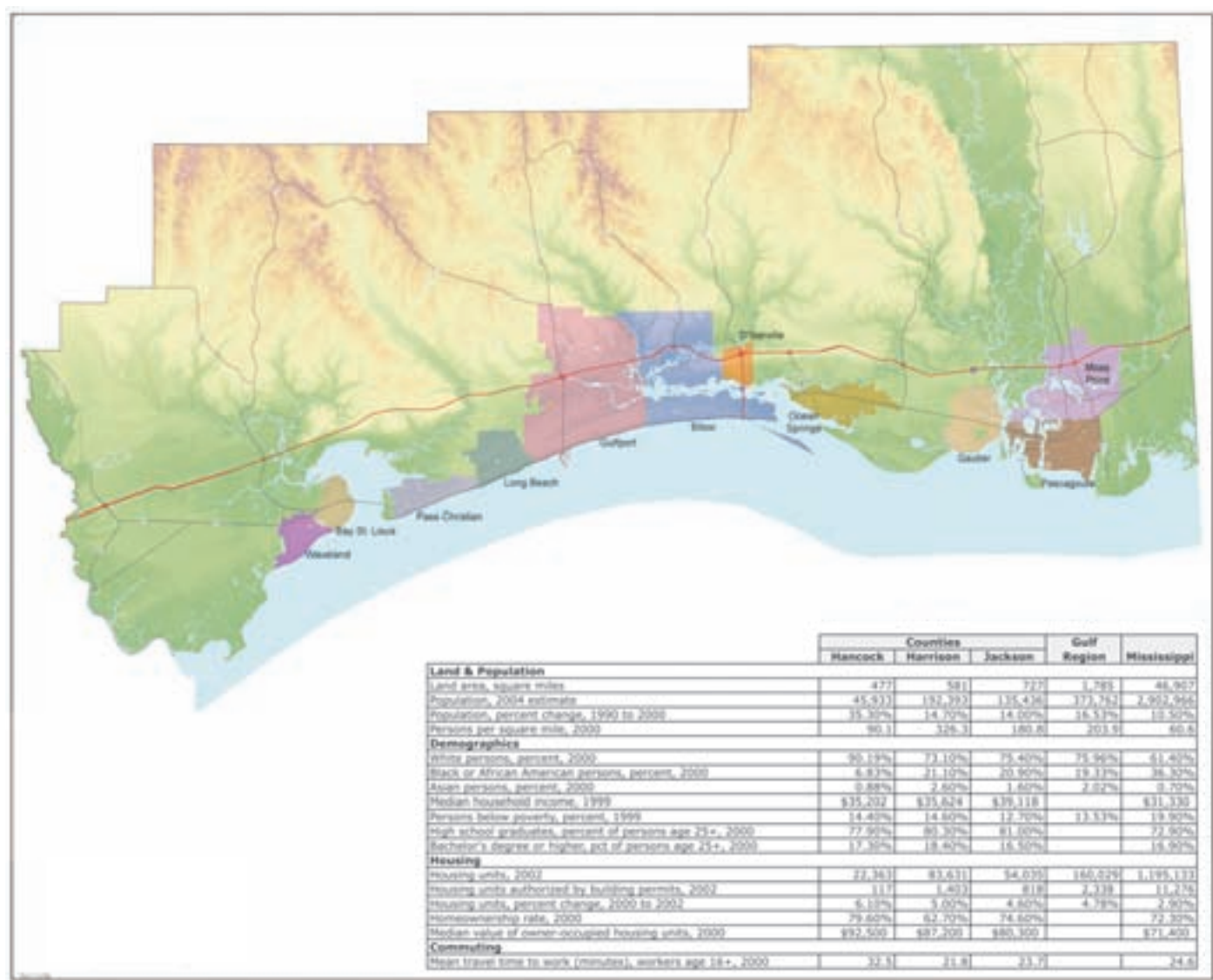


Photo: Sandy Sorlien

The Mississippi Gulf Coast region is a three-county coastal corridor stretching approximately 110 miles between Louisiana and Alabama. The region encompasses 11 municipalities and a roughly equal number of unincorporated communities and hamlets.

## Regional choices, regional effects

### AFTER KATRINA, GULF COAST COMMUNITIES STAND AT A CROSSROADS

BY JASON MILLER

When Hurricane Katrina battered the Mississippi Gulf Coast, it left behind thousands of displaced families and 30 million cubic yards of debris — and crucial, time-sensitive choices for the 11 coastal communities studied during the Mississippi Renewal Forum. The mayors and residents of these cities are overwhelmingly optimistic about their future rebuilding opportunities, and with good reason. In many

areas, the ground was scoured clean of what had been there, providing an unusual option: Start from scratch.

But development momentum that began before the storm may stand in the way of the kind of rebuilding and renewal envisioned by participants in the October charrette. If policies, codes and design criteria that deliver the desired end result aren't adopted swiftly, the path of least resistance may lead to region-wide sprawl development that many residents said is unacceptable.

### EARLY IDEAS

During the charrette, members of the regional team studied environmental, transportation, housing, and economic development issues that were common to 11 communities affected by the storm. Ideas generated by the team included:

- Grind up a portion of the storm debris and use it as fill to raise the elevation of the more low-lying areas.
- Transportation efforts ought to reinforce the overall goal of reinvest-

ing in the existing towns.

- Design streets to create a balanced environment for walking, biking, and cars.
- Improve connectivity between towns, starting with moving the CSX freight line tracks north of I-10, then transforming the abandoned right of way into a boulevard for both cars and transit.
- At the same time the freight line is moved north, create a high-speed rail network that travels east/west and links the Gulf Coast with Mobile and Pensacola to the east, and Baton Rouge or Houston to the west.





Illustration: Correa and Associates

**Ten to 15 million tourists visit the Gulf area every year, but they visit the casinos and are cut off from the rest of the town.**

- Reconnect the towns with the Gulf by turning Highway 90 into a beachfront boulevard; a trolley or streetcar can be placed in that right of way (see pages 8-10).
- Carefully analyze existing Mississippi DOT road projects for feasibility and potential cost-savings; many can be downsized without sacrificing traffic flow so that they fit better into the context of the towns.

One of the more challenging issues was that of retail, says regional team leader Harriet Tregoning, director of the Washington, D.C.-based Smart Growth Leadership Institute and the Governors' Institute on Community Design. "We had a situation that was seemingly at odds with reality. Almost every town wanted desperately to rebuild retail on its historic main street, even though traffic counts and market choices had long ago migrated the retail centers to the big arterials."

The team called on retail expert Bob Gibbs to develop a workable retail strategy for the towns. After discussions with residents and city representatives, Gibbs identified two key problems:

1. Ten to 15 million tourists visit the Gulf area every year, but they visit the casinos and are cut off from the rest of the town.
2. Non-casino retail options are so suburban in character (nondistinct), few tourists will frequent them. (Why shop at a store that's in your home town?)

Gibbs suggested siting neighborhood retail and lifestyle centers in town and included rough, manageable square footages, location suggestions, target market(s), and individual retail strategies for each town, so that visitors are tempted to visit the individual towns for unique retail experiences (see page 11).

"If the towns choose to act on the elements of Bob's plan, the regional impact could be profound," says Tregoning.

#### **COMMON PROBLEMS, COMMON SOLUTIONS**

As the 11 communities rebuild and renew their built environments, their actions will inevitably affect their neighboring towns. The road ahead can be smoothed, though, if the towns stay in close contact with each other, so that as the challenges are met and conquered, the solutions can be duplicated elsewhere in the region.

"The charrette was not able to cover all the rebuilding issues that affected any given town," says Tregoning. "However, many of the towns addressed issues that were regionally occurring."

In Waveland, arterial conditions prompted that town's design team to suggest moving the buildings closer to the street and containing the traffic. D'Iberville chose to reject the closed, monolithic casino form, instead addressing it as part of the urban landscape: more porous and open to the commerce efforts around it. Pass Christian dealt with Wal-Mart, brainstorming its inclusion in an urban configuration, lined with

other buildings or topped with condominiums.

Time is of the essence, though, urges Tregoning. While development to date has been fairly concentrated along a 10- to 15-mile strip that hugs the coast, the building permits pulled show a momentum building to disperse development throughout the countryside in a relentless sprawl pattern. "Katrina could be either a huge accelerator of the sprawl trend or a catalyst to slow it down," says Tregoning.

City officials will need to make sure the best policies, building and zoning codes, and design criteria are in place so that redevelopment on an appropriate scale can take place just as quickly as sprawl development would.

"Local leaders have it in their power to change zoning and create a regulatory environment that provides certainty ahead of FEMA's final flood elevation maps. That climate of certainty, of bringing back the households and small businesses, is key. People can't put their lives on hold for months; if they can move out into the country and get their lives started again (in a sprawl development), they'll do that. It's crucial to create the condition of certainty and facilitate a good rebuilding as quickly as possible."

Then there's the question of money and its proper use. With \$1 billion of FEMA funds sitting on the table for mitigation and property buyouts, local governments will need to work with residents to determine its most appropriate use; in other words, the question must be asked: How can

this money be used to retain our community ties while redeveloping properly?

Tregoning offers this example: "If you have a neighborhood of 50 houses that was devastated, and 10 households take the buyout, what do you have? You don't have an area that can be restored to its natural state, and you don't have enough critical mass to recreate the neighborhood. You need a critical mass of residents to decide what they're going to do—whether it's creating a neighborhood amenity or rebuilding a neighborhood."

"Not every community has the capacity to act with equal swiftness and certainty, though. If one or two towns act and the other nine don't, you could lose the critical mass on a regional level."

Finally, there's the stickiest question of all: Should every place damaged by Katrina be rebuilt or allowed to return to its natural state?

Options exist for rebuilding at higher elevations, but most are cost-prohibitive and unsightly at best. And if some of the coastal areas were restored to their natural conditions, they would provide more of a buffer against future storms, thereby protecting both the immediate and neighboring towns. "Everyone might be better off in terms of flood protection if development was pulled back from the coast," says Tregoning.

"This is a hard decision, and we're not suggesting this has to be done. We think the communities need to consider it, though."



# TRANSPORTATION



A multi-modal network of transit, ferries, bikeways, promenades and trails can reinforce the viability of neighborhoods and connect them to town centers. Proposed is a conversion of Highway 90 right-of-way into a multi-modal corridor.

## Building a 21<sup>st</sup> Century Transportation System for the Gulf Coast

BY RICK CHELLMAN

Hurricane Katrina destroyed thousands of homes and businesses along the Gulf Coast. The storm also ripped up freight lines, brought down bridges and wrought havoc with the transportation system. Yet local residents and state leaders showed optimism and resilience throughout the Mississippi Renewal Forum, a one-week effort to help define a rebuilding strategy for the Gulf Coast. Though the primary emphasis of the Forum was to provide plans and tools for the 11 towns to reemerge stronger than ever, a key set of recommendations focused on regional transportation infrastructure. Forum participants found that the economic, environmental and social vitality of the region depends, in part, on a renewed transportation network – a network that both nurtures reinvestment in the historic Gulf Coast towns and provides forward-thinking linkages to economic centers throughout the South.

Clearly, one of the first rebuilding tasks is to reestablish the linkages between communities and across waterways that were destroyed. There is a sense of urgency to restarting the local economy that can be assisted through strategic road and bridge projects. Indeed, many of the existing streets need repair and reconstruction, and several key bridges need to be replaced.

Importantly, however, this urgency must be somewhat tempered as the opportunity now exists to reconsider how all of the reconstruction efforts fit with the long-term goals of the region and local communities. If the Mississippi Gulf Coast is to reemerge as a model of economic strength, based on a diversified economy of homes, businesses, tourism, gaming, retirement living and water-related industry, the character and design of new transportation infrastructure should be sensitive to these goals and enhance them whenever possible. The priority should be placed on rebuilding well-loved and economically vital places, rather than simply moving cars or freight through the region.

### GOALS AND PRIORITIES

The Renewal Forum's Transportation Team endorsed the goals suggested by the Governor's Commission's Infrastructure Committee:

- Plan and rebuild to new higher standards
- Improve transportation systems
- Move east-west railroad to the north
- Provide better access to and from the region

To achieve these goals, the Transportation Team recommends the following priorities:

- Reduce congestion and improve the vitality of towns by prioritizing walkability. Each town should have a network of walkable neighborhoods and districts.
- Work with the legislature to revise the structure of MDOT into one Commissioner Department appointed by and responsible to the Governor on behalf of the people.
- Work with MDOT to plan the movement of people – not just cars – to and around the Gulf Coast.
- Build a transportation network that is “multi-modal” – cars, bikes, pedestrians and transit.
- Design matters. Every road, transit and bridge project should pay attention to the details of place-making.
- Revisit and recalculate ALL future traffic projections based on the new visions.
- Improve east-west connectivity between Gulf Coast towns with a new multi-modal boulevard along the railroad right-of-way.
- Realign and revise U.S. 90 to become a pedestrian-friendly “Beach Boulevard,” linking communities with the Gulf's beaches and waterways.



- Create a Gulf Coast bikeway that stretches the entire length of the region and provides linkages to the beautiful inland bayous and greenways.
- Balance freight and industry needs with local development objectives.
- Connect the economy of the Gulf communities with the greater South through a high-speed inter-city rail connection.
- Move the existing freight train route out of the coastal area.

MDOT has at least two very large projects actively proposed for construction or reconstruction that do not fit well in the community visions that came about at the Renewal Forum. They are addressed below:

### BILOXI BAY BRIDGE

The new Biloxi Bay Bridge is proposed as a high-rise, six-lane bridge on parallel alignment that will extend over the CSX Transportation Railroad in Ocean Springs. This bridge is proposed to replace the four-lane bridge the travel surface of which was destroyed by Katrina (in color below). The cross section of the proposed bridge is up to 120 feet wide; actually wide enough for at least eight lanes of traffic.

The destruction of the old bridge is an important example of a new opportunity for a revised alignment because other than the right-of-way there is nothing requiring its reconstruction in the same location as before.

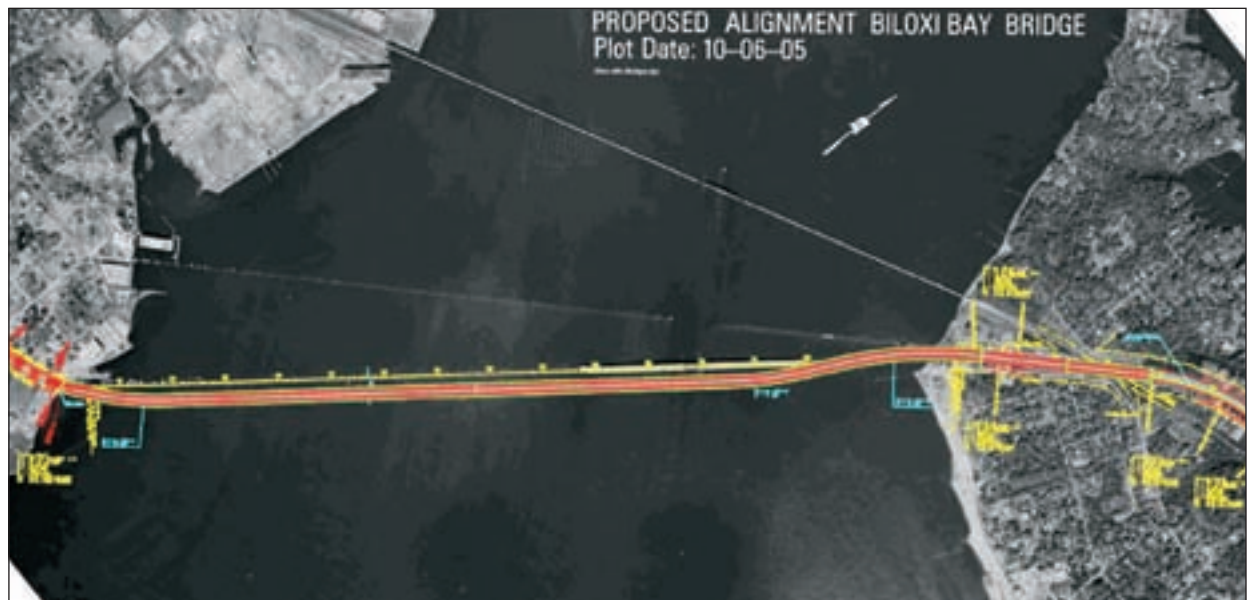
In the prior auto-dominant scenario of the Gulf Coast, planning highways bigger and faster made more sense than it does today. If the Gulf communities are allowed or even required to be rebuilt as mixed-use, walkable neighborhoods then they will generate less traffic. Further, if transportation options are provided, such as transit, then need for additional lanes of traffic is lessened.

Building in “extra” capacity can also have unintended consequences as overbuilding a highway facility can induce more vehicular travel (see the induced traffic sidebar, above for additional explanation of this point).

In addition, the Biloxi side of the bridge is fixed in most folks’ minds at no more than four lanes. On the Ocean Springs side, the city has seen how it may redevelop, and the recent widening of its section of U.S. 90 to six lanes may need to be undone.

A four-lane bridge makes sense and would save a lot of taxpayer money (64 feet wide as opposed to 120 feet). In the alternative, a six-lane bridge that is truly a six-lane bridge (about 88 feet wide) would also save a significant sum. Furthermore, a six-lane bridge connecting with four-lane streets does not make sense.

The transportation team proposes a realignment of the bridge to the north into the CSX rail corridor. This realignment would be in conjunction with a new



**Proposed alignment of a six- to eight-lane bridge from Biloxi to Ocean Springs.**

east-west thoroughfare in Biloxi on Division Street and providing connection with Beach Boulevard (former US 90 in Biloxi), as depicted in the diagram at bottom of this page.

This realignment would also allow significant redevelopment and additions to the tax bases of both Biloxi and Ocean Springs. The sale of the land in unused right-of-way would generate significant revenue as well (one real estate broker’s estimate in Biloxi was “at least \$7 million” for the Biloxi side).

Though all local and state leaders have agreed that this approach is superior to rebuilding the bridge in its current alignment, MDOT has decided to move forward with its original plans due to potential funding constraints from the Federal Highway Administration. Another concern is that the use of the CSX right of way would take too long to negotiate.

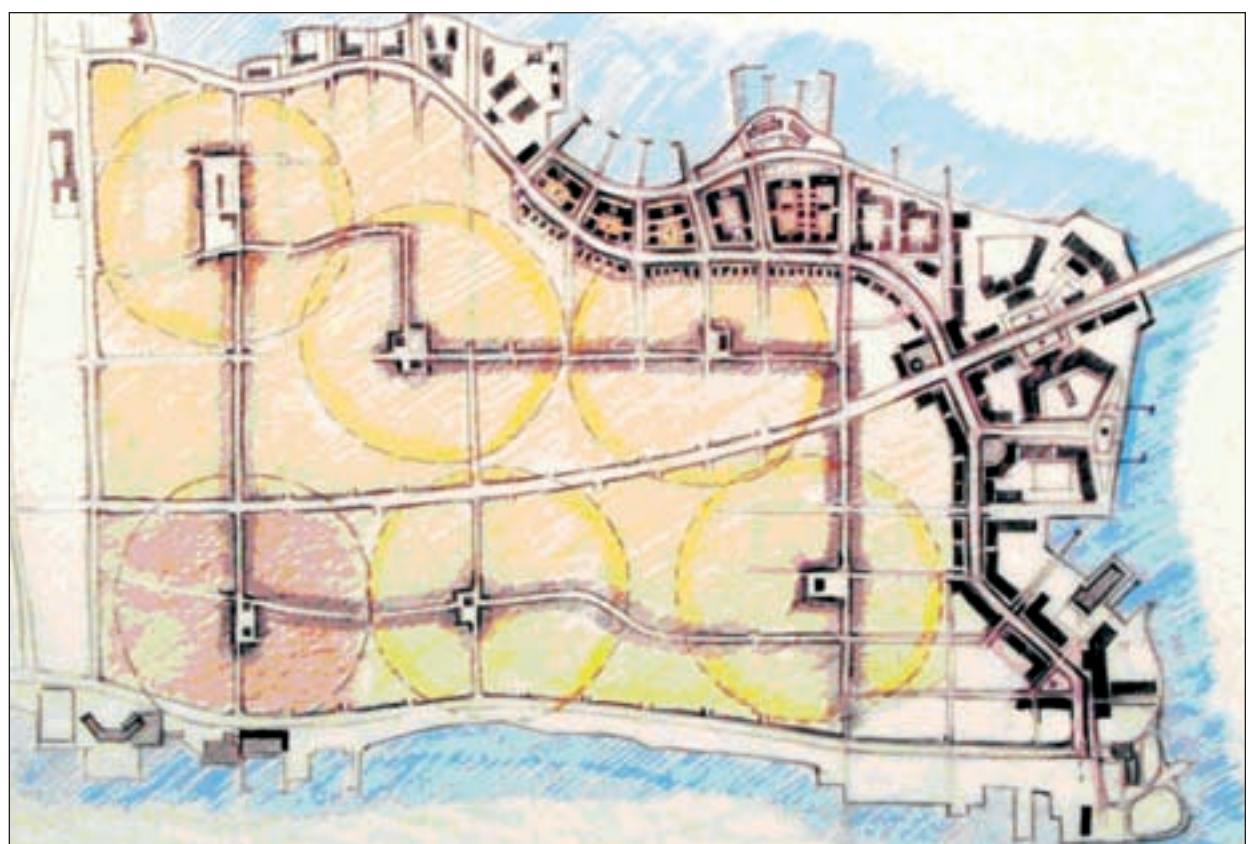
The primary final MDOT complaint was that any change would delay reopening traffic flows across the Bay.

Subsequent to the charrette, it was determined that at least one contractor who proposes to build the new bridge will be doing so in reliance on the abutments that remain where Katrina lifted the concrete deck panels from them in the bay.

Learning this, the charrette team members proposed that the abutments be used to reopen an automobile-only bridge that could remain as a two-lane auto plus pedestrian plus bicycle plus transit bridge. This rebuilt two-lane bridge would be combined with a four-lane bridge on the CSX alignment.

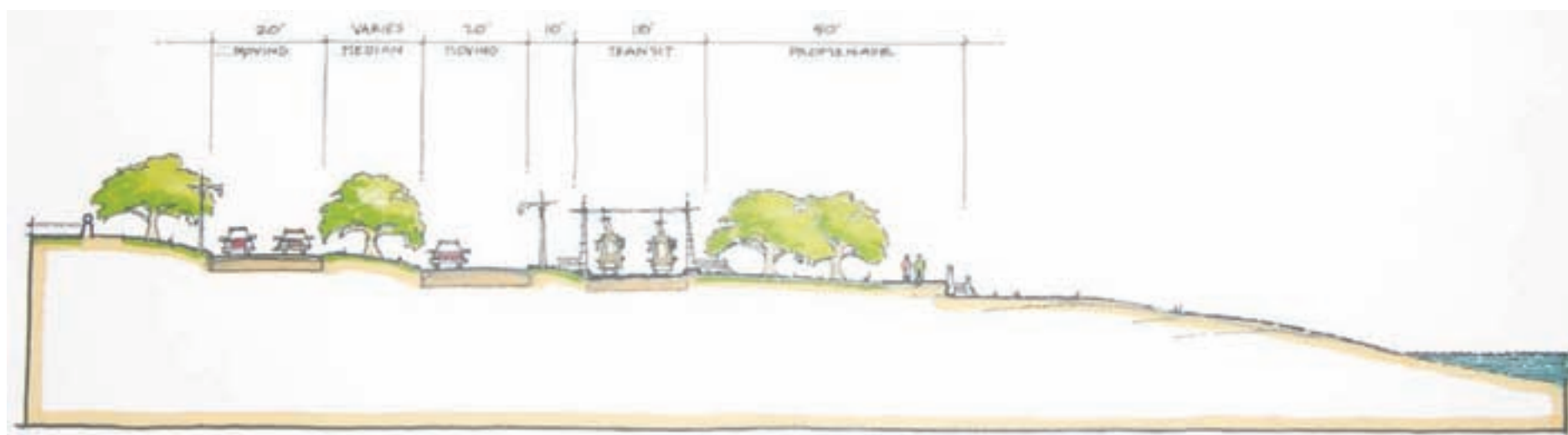
This “four plus two” concept would have reopened traffic across the Bay much sooner than any other plan and would provide the larger bridge along the better alignment. Re-opening the smaller bridge soon would also have taken a little pressure off MDOT and allow it time to negotiate the CSX alignment.

■ | TO PAGE 10



**Suggested realignment of Highway 90 through Biloxi to the Biloxi-Ocean Springs Bridge.**





**Beach Boulevard provides safe pedestrian and bicycle access to and along the water, as well as space for a waterfront streetcar.**

#### ■ | FROM PAGE 9

Once again, however, MDOT has rejected this concept out of hand. The transportation team urges locals to insist on a reconsideration of this matter.

### **GULFPORT (CANAL ROAD) CONNECTOR**

The Gulfport connector is proposed as a new four and six-lane grade-separated highway link from the area of the port and the interstate. The connection at the interstate is proposed as a new “super-interchange” of multiple levels, combining the existing Canal Road interchange with the new link’s alignment to the north.

A new or improved link to aid truck traffic into and out of the Port seems like a reasonable notion, but its design conception seems flawed.

A revised alignment, aligning with the existing Canal Road interchange, would save a lot of money and greatly simplify the interchange for drivers. Alternatively, the Canal Road interchange could be abandoned and a much simpler interchange built on the proposed alignment – again saving funds that could potentially be used on other projects.

In addition, MDOT is building this interchange with the belief that it needs to accommodate as many as 60,000 vehicles per day in and out of Gulfport. These projections should be recalculated based on the revised vision for the city and the region.

In addition, the current MDOT plans propose a connection of this road with Beach Boulevard. This would be a mistake as it would continue to create and foster auto-dependence.

The transportation team recommends that this proposal be revisited fundamentally. The specific charrette recommendation is for a two-lane truck connection with the port that would come back to grade as soon as practical and then align with Canal Road.

### **OTHER SUGGESTED PROJECTS:**

#### **REBUILD I-110 AS AN AT-GRADE BOULEVARD**

I-110 provides a grade-separated connection between I-10 and Highway 90 through D’Iberville

and Biloxi. The Biloxi team recommended tearing down the elevated section of this road as it passes through Biloxi and building a boulevard with similar capacity in its place. This strategy would not only open up tremendous land for development in Downtown Biloxi, but would also improve the quality of the environment at grade, improve east-west connections to downtown and maintain easy access to the beach casinos.

At the time of this writing, MDOT and the city have declined to accept this recommendation, but it should remain a part of the long term plans.

### **CREATE A GULF COAST BIKEWAY**

Bicycles are perhaps the most energy efficient means of travel, on average five times more efficient than walking and, of course, bicycles do not consume fossil fuels. Bicycle travel should be encouraged, and the opportunity for and the benefits of a regional coastal bike route are tremendous. The transportation team recommends creating a Coastal Bikeway along the waterfront and linking all the towns in the Gulf. This could be a tremendous asset to the regional eco-tourism program and could be of value to local residents.

### **BUILD TRANSIT AS A DEVELOPMENT STRATEGY**

Forum participants from all 11 towns were enthusiastic about becoming a region where a walk to the local store is easy and convenient, and where transit is a pleasurable and cost-effective means of getting to work or seeing the sights. This notion of providing a transit stop in each neighborhood and clustering new housing, shops and businesses nearby is called: transit-oriented development.

### **PROVIDE INTER-URBAN RAPID TRANSIT SERVICE ON THE CSX RIGHT-OF-WAY**

For many years, planners and local leaders have called for the removal of freight traffic on the CSX rail line, which runs east-west through the region roughly 800 feet from the coast. Accidents and noise from the 25 to 30 trains a day place a burden on neighbors and make the line difficult to cross.

Forum participants recommended embracing a plan to move the freight line north of I-10 (combined with high-speed rail, see below) and thus open up

the current CSX right-of-way for a combined street/transit way.

### **ENHANCE LOCAL FEEDER BUS SERVICE**

Current bus routes, over time, should be realigned to provide feeder connections to and from the streetcar and major transit stations.

### **PROMOTE WATER TAXIS**

The region is blessed with tremendous heritage and access to the water. It is part of what defines the Mississippi coast and makes it unique. Visitors, in particular, should have greater opportunities to visit the water experience the water as a means of travel.

Initially, a ferry connection between Ocean Springs and Biloxi will be provided while the Highway 90 bridge is being reconstructed. Over time, additional routes could be added that link with Moss Point and the islands.

Connect the Economy of the Gulf Communities with the Greater South Through a High-Speed Inter-City Rail Connection.

CSX has an interest in building its capacity to support east-west freight traffic and provide more efficient linkages to New Orleans and Baton Rouge to the west, Meridian and Jackson to the north, and Mobile and Pensacola to the east. The strategy calls for acquiring new right-of-way north of I-10. A doubling of return on this substantial investment could be achieved if the right-of-way also includes high-speed passenger rail service that links to airports and major cities throughout the South. Improved freight and passenger rail service has the potential to substantially bolster the economy and vitality of the Southern states, as well as provide a secure evacuation route that gets residents quickly and efficiently out of harms way.

To accomplish this goal, the CSX service would need to be realigned to this route, with a rail spur for north-south freight and passenger service along the existing right of way next to Highway 49 to Gulfport. Connections through Louisiana and Alabama would need to be negotiated. Costs for high-speed passenger rail tracks and cars would need to be identified and funds secured. Unless access is limited, the service may not function as envisioned.



# SOCIAL IMPACT

## Key Social Issues and Associated Planning Actions

BY EMILY TALEN AND DAVID BRAIN

The coastal region is diverse in terms of race and, to a growing degree, ethnicity. It is also diverse in terms of income, age and household type. City plans should accommodate this diversity by providing housing, services and transportation for a broad range of social groups. This includes providing a range of housing types, as well as transportation systems that support location efficiency and the reduction of travel costs.

As in many other cities, minorities and lower-income groups along the coast often reside in centrally located parts of town (see diagram 1). Infill development should be encouraged to conserve the existing social fabric, as well as regenerate these centrally located neighborhoods.

A number of physical planning strategies can help to recentralize and connect a diverse (and dispersed) population. These include public transit, civic sites and buildings that reinforce community identity, housing variety that can accommodate aging in place (and therefore community stability), and the location of institutional and commercial uses within walking distance.

Policies that support the above physical planning objectives – infill, mixed use, mixed housing type, public transit – are policies that also support the social fabric of the region. In addition to private and public sector initiatives, such policies may include pre-approved building designs and the adoption of form-based codes.

### ACTIONS REGARDING THE REBUILDING PROCESS

- Rebuilding will be most successful if citizens are actively engaged in the process. This includes meaningful involvement from a broad social spectrum.
- Detailed plans for special areas should be conducted using the charrette method.
- Successful implementation of plans in a post-disaster situation requires additional effort, beyond the “normal” process of plan-making and project permitting. The following strategies are recommended:
- Establish a central coordinating and communications center to facilitate the flow of information regarding every aspect of recovery and rebuilding.
- Engage the services of a professional facilitator to work with the citizens to develop a Citizen Action Committee for Rebuilding. A facilitated rebuilding process would ensure and open dialogue (and restore trust), mobilize civic assets, nurture leadership, and help to build consensus.
- Create a “Public Officials Design Institute” on the model of the Mayors’ Institute, in order both to assist local government officials with technical issues and create a framework of cross-jurisdictional collaboration.



Ocean Springs plans get a thorough review.



Moss Point Team member Clyde Judson speaks with Emily Talen.



Local residents attend the final Bay St. Louis presentation.



Andrés Duany discusses Gulfport plans with Josie Holden and Mayor Brent Warr.



Pass Christian residents meet with the charrette planning team.



# RETAIL



Illustration: Ben Pentreath

**New pedestrian-friendly designs for big box stores, such as Wal-Mart, were envisioned at the charrette.**

## Revisioning the Retail Experience

BY ROBERT GIBBS

While the Katrina disaster has caused severe damage to numerous historic downtowns and shopping centers, the storm's long-term impact may be an accelerated movement of the region's commercial centers away from the historic coastal towns towards Interstate 10 (I-10). The pre-Katrina Mississippi Gulf Shore region's retail market was comprised of a complex combination of three distinctive market segments: local residents, regional visitors and casino tourists. Although the Gulf Coast region has seen numerous new commercial construction projects during the past decade, it is still considered

to be under-served and lacks many leading major retailers.

Gibbs Planning Group (GPG) was commissioned by the Congress for the New Urbanism to assist in a weeklong charrette to assist in the programming and planning of 11 Gulf Coast communities that were damaged by the Katrina hurricane.\* These 11 communities (from west to east) are: Waveland, Bay St. Louis, Pass Christian, Long Beach, Gulfport, D'Iberville, Biloxi, Ocean Springs, Gautier, Moss Point and Pascagoula. At its conclusion a preliminary retail report was produced.

The report finds that the 70-mile Mississippi Gulf Coast retail market has

shifted its critical mass away from its urban centers located along Highway 90 to centrally located intersections along I-10. Presently, the post-Katrina retail market is experiencing tremendous demands for most retail categories as residents begin rebuilding and supplying their households. However, most of this retail spending is occurring in discount department stores and outlining shopping centers. At the same time, many of the existing coastal towns are suffering from significant storm damage and sudden loss of population.

Like many American regions, the 11 Mississippi Gulf Coast downtowns have lost their primary role as a meaningful provider of necessary



**Robert Gibbs**

goods and services for their communities. In exchange, many of the Gulf towns serve the tourist market with restaurants and specialty boutique gift shops. In addition, most of



the Gulf Coast towns and cities have also retained many of the governmental functions and private sector offices and an emerging residential demand.

The Katrina disaster represents an opportunity for the many of the Gulf Coast communities to reverse the existing migration of commerce towards suburban shopping centers and the I-10 corridor. With proper planning, the historic Gulf towns can capture additional commercial market share and reinforce Highway 90's importance as the region's center of commerce. If the existing retail migration towards the Interstate is left unchecked, this study finds that historic downtown's will need to focus on tourism, resort and casino visitors as their primary market niche.

#### EXISTING RETAIL

The Gulf Coast region is serviced with a variety of shopping centers and historic downtowns including two enclosed regional malls, five major community centers, 10-12 gro-

cery anchored neighborhood centers, numerous big-box anchors and six Wal-Mart's. The Waveland and Pass Christian Wal-Mart stores were closed by the storm, and the Waveland location has opened a temporary tent store. Most of the Gulf Coast Wal-Mart stores have a relative limited trade of only 3-5 miles, containing 6,000-10,000 households, or about the same number of shoppers as two standard supermarkets. For the most part, the Wal-Mart stores are presently servicing at a neighborhood scale, rather than a super regional market as is often reported.

The newer major community shopping centers and cinema's are located along I-10 at the Highway 49 and I-110 interchanges. The I-10/49 interchange is quickly becoming the region's "main-main" center of commerce and presently includes a major outlet mall, a 500,000 square-foot community center and a multi-screen cinema. This intersection will gain even more importance with the opening of a proposed 900,000 square-foot shopping center.

#### POTENTIAL RETAIL DEMAND

The region remains generally underserved for many retail categories including warehouse goods, better home furnishings and apparel, electronics, home improvement and discount apparel. In addition, the region could potentially support a significant amount of casual and theme restaurants and lifestyle tenants.

Although the 11 historic downtowns will never likely regain their earlier dominance as the primary location for the regional shopping destination, it is possible that the towns can gain significant market share. This study finds that most of the Gulf Coast downtowns have a once-in-a-generation opportunity to regain share.

In addition, a limited amount of service businesses such as medical, financial, real estate and designers would reinforce the center's tenant mix. As much as possible, the village's brand and businesses should have a character that makes the shopper feel that this is hers and her neighbor's personal village center.

#### REBUILDING DOWNTOWN

This expansion of the downtown retail will require numerous coordinated efforts including:

- The establishment of an effective Business Improvement District (BID) Authority.
- The rebuilding or restoration of the historic downtown's buildings and characteristics.
- The implementation of new urban planning and design principals and polices to establish a form-based zoning code and regulatory boards.
- The installation of market-based parking lots and decks.
- A coordinated leasing plan and team that is effective at attracting leading local, regional and national retailers.
- The return of anchor tenants and department stores, including department stores, popular discount chains and big box retailers.
- The adoption and enforcement of modern signage, streetscape and building facade improvements, including a sunset timeframe to ensure the timely improvement.
- Regional planning to discourage commercial suburban sprawl across I-10.
- Encourage medium to high-density residential development in the downtowns.
- Locate new casinos into the downtown shopping district and/or link existing casinos into the downtowns.



A renewal plan for Escatawpa Village in Moss Point includes a new village center with shops, restaurants, small hotel and a variety of housing types.



# General Tenant Recruitment Guidelines

The following outlines GPG’s general suggestion for consideration as a leasing guideline for each of the study area communities:

## WAVELAND

(19,000-28,000 square feet)

Retain the communities creative and art focus offering an affordable alternative to Bay St. Louis and major cities:

2-3 restaurants (5,000-8,000 square feet)

6-10 gift and art shops (12,000-15,000 square feet)

Neighborhood retail (2,000-5,000 square feet)

## BAY SAINT LOUIS

(145,000-200,000 square feet)

8-10 restaurants (20,000-30,000 square feet)

12-15 gift and art galleries (30,000-50,000 square feet)

Anchor store: books, sporting goods, apparel (15,000-25,000 square feet)

Neighborhood with grocery store (80,000-100,000 square feet)

## PASS CHRISTIAN

(250,000-320,000 square feet)

5-6 restaurants (15,000-20,000 square feet)

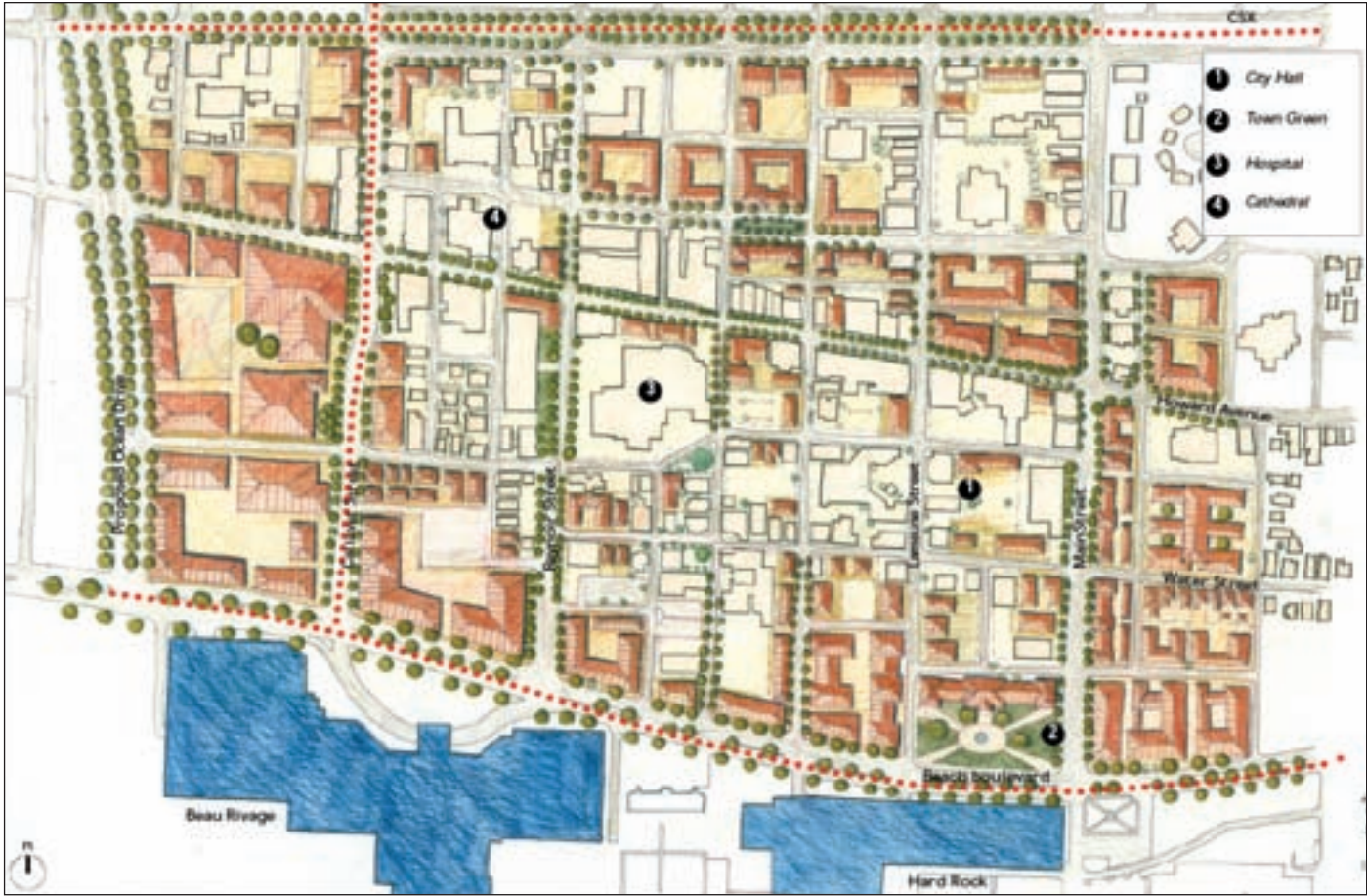
12-15 gift and specialty stores (15,000-20,000 square feet)

Neighborhood services (20,000-30,000 square feet)

Community center with discount department store (200,000-250,000 square feet)

## LONG BEACH

(28,000-32,000 square feet)



In Biloxi, a range of uses are proposed for the 15-block downtown. Additional retail, commercial and residential would help to form a vibrant neighborhood.

Restaurants (8,000-12,000 square feet)

Neighborhood services (20,000-30,000 square feet)

## GULFPORT

(210,000-300,000 square feet)

Restaurants (30,000-50,000 square feet)

Fashion and core merchandise (80,000-120,000 square feet)

Anchor: books, music, department store, sporting goods (50,000-60,000 square feet)

Neighborhood services (50,000-70,000 square feet)

## D’IBERVILLE

(175,000-300,000 square feet)

Restaurants (10,000-15,000 square feet)

General Merchandise (15,000-25,000 square feet)

Community Retail with anchors (150,000-250,000 square feet)

## BILOXI

(175,000-300,000 square feet)

Restaurants (30,000-50,000 square feet)

Fashion and Core Merchandise (80,000-120,000 square feet)

Anchor: books, music, dept. store, sporting goods (50,000-60,000 square feet)

Neighborhood Services (50,000-70,000 square feet)

## GAUTIER

(25,000-40,000 square feet)

2-3 Restaurants (5,000-10,000 square feet)

Neighborhood Services (20,000-30,000 square feet)

## MOSS POINT

(20,000-32,000 square feet)

2-3 Restaurants (8,000-12,000 square feet)

Neighborhood Services (12,000-20,000 square feet)

## PASCAGOULA

(64,000-86,000 square feet)

Restaurants (12,000-20,000 square feet)

Fashion and Core Merchandise (10,000-15,000 square feet)

Anchor: Books, music, department store, sporting goods (20,000-20,000 square feet)

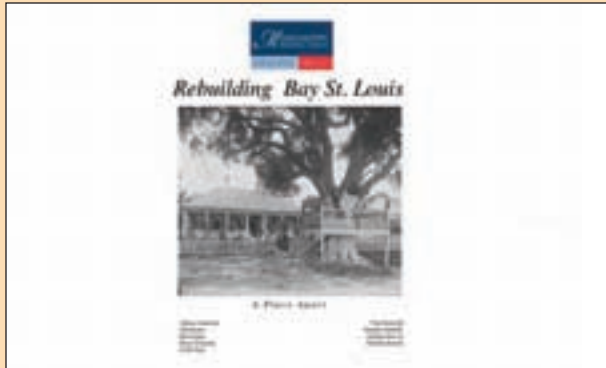
Gift Stores (8,000-12,000 square feet)

Neighborhood Services (12,000-20,000 square feet)

*Note: The findings of this study are only based upon GPG’s seven day visit to the Gulf Coast region and brief interviews held with the public and local stakeholders. These interviews have not been independently verified. This report’s observations and recommendations should not be the sole basis of any master planning, design, land purchases, capital improvements, leasing, financing or development. Further analyses are recommended prior to implementing planning and development enhancements.*



# COMMUNITY REPORTS



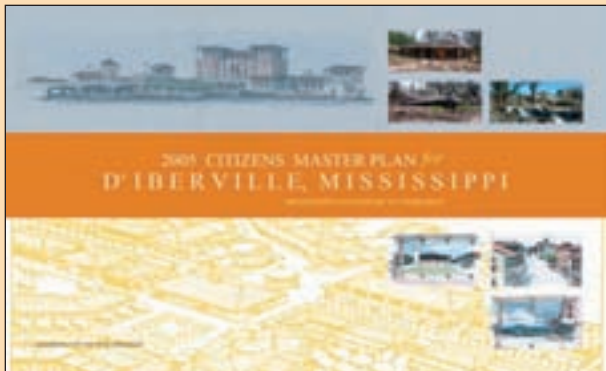
**BAY ST. LOUIS ..... PAGE 20**

The Mississippi Renewal Forum Governor's Report includes a synopsis of 18 individual reports that have been produced to guide the rebuilding of the Gulf Coast.

This next section is a briefing on what can be found in the Community Reports.



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**D'IBERVILLE ..... PAGE 42**



**GAUTIER ..... PAGE 50**



**GULFPORT..... PAGE 32**



**LONG BEACH ..... PAGE 28**



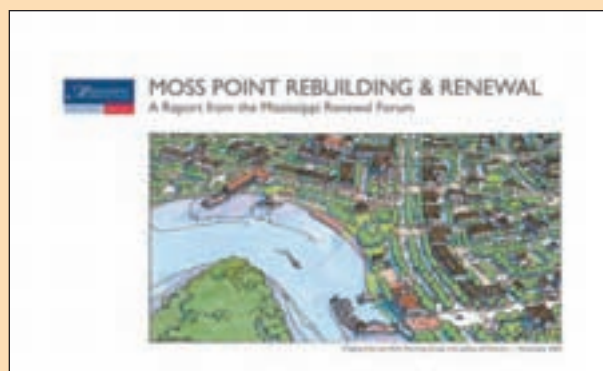
**OCEAN SPRINGS..... PAGE 46**



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**PASS CHRISTIAN..... PAGE 24**



**MOSS POINT ..... PAGE 58**



**WAVELAND ..... PAGE 16**

**Full copies of these reports can be ordered and/or downloaded from:**

[www.cnu.org](http://www.cnu.org), [mississippirenewal.com](http://mississippirenewal.com) or [tndtownpaper.com](http://tndtownpaper.com).

In addition, special reports on regional matters such as transportation, environment, social, economic, architecture and code issues are also available.





Illustration: David Carrico

# WAVELAND

Originally a getaway for wealthy New Orleans residents, the town of Waveland lost many of its grandest homes to Hurricane Camille in August 1969. After those homes were replaced, in many cases by more unassuming houses, Waveland sought to establish a new identity as a place not just to vacation, but for year-round “living, working and playing — in that order,” said Mayor Tom Longo.

Those goals took a solid hit when the town of 6,000 was all but leveled by Hurricane Katrina’s Category 4 winds and storm surge, which reached 35 feet in places. Eighty to 90 percent of all structures — commercial and residential — were heavily damaged, creating an instant economic crisis and raising questions as to how the town might recreate itself.

Laid-back and affordable, Waveland was home to many of the artists whose work is displayed in galleries in neighboring Bay St. Louis. Waveland also claims a unique asset: a stretch of publicly accessible beachfront unspoiled by commercial

development or Highway 90, a busy, multi-lane thoroughfare that runs along the coastline in the neighboring towns of Pass Christian, Long Beach, Gulfport and Biloxi.

Preliminary ideas generated by Waveland residents and their charrette team concentrated on bringing back the noteworthy characteristics of the community, while enforcing those that weren’t as clear before the storm. Waveland’s main street was difficult to find; the design team proposed enforcing the existing St. Joseph Street to make it more visually obvious and more connected to Highway 90, so that visitors can more easily locate Main Street. An additional approach can be taken to the east, by lengthening Nicholson Avenue to draw further attention to its southern stretch, which is lined by live oaks. Coleman Avenue would benefit from new buildings to fill in its gaps, including a new town hall, a new American Legion Hall, and a public pavilion, among other additions.

Of immediate concern is the town’s economy,

which could be jump-started by reviving development along Highway 90, the region’s shopping corridor. “That’s an instant tax base,” said resident Tommy Kidd.

Ricky Peters, a local restaurateur, said he wanted to see the town’s commercial district grow, with better-managed parking and condominiums that could accommodate more potential shoppers. And Gwen Impson, a Waveland resident who heads Arts Hancock County, shared her vision of a renewal focused on the arts, with a rebuilt Coleman Avenue that housed artists, performers and craftspersons living above studios and galleries, adding life to what had been a modest set of 29 shops.

**Above: A vision for proposed housing along Beach Boulevard in the velocity zone.**



An aerial view of Waveland post-Katrina.



Charrette team meets with residents in a tent in Waveland.



Team leader, Robert Orr, speaks to residents at the charrette.



# Strategic Actions

## DESIGN

In all new work, maintain and enforce image of a well-loved, family-oriented, friendly, diverse and inclusive, beach town. Waveland is an informal “bare feet” kind of place where kids and dogs are as comfortable in the streets as they are in back yards. Keep it low key, not cute or “Disney’d up.”



Require development to take the form of interconnected neighborhoods with central public spaces, mixed housing, and neighborhood services within easy walking distance of residents.

Concentrate commercial development in a new neighborhood center along Highway 90, with

expansion toward Old Spanish Trail. This neighborhood is designed to include local and national retail, restaurants, apartments, live-works, condos, single-family houses and the community college.

Attract Stennis Center personnel. Be sensitive to unique character of Waveland's diverse neighborhoods.

Provide range of housing types to increase affordability, family orientation, beach-going, aging-in-place (retirement housing) and youth culture. Get schools back up and running.

## POLICY

Define town plan with overlay codes to provide incentives for new mixed-use development.

Tourism: Bring back warm and casual character of beach town. Create arts district as draw for region. Capitalize on unique artistic heritage. IHS (Institute of Higher Learning). Create links to area tech employees, computer training/mapping, satellite imagery, incubator office/business space.

Capitalize on Waveland's many festivals, events, parades, etc. Senior Olympic sponsorship. Mardi Gras Museum. Costume design and construction.

Increase attraction to families and year-round

residents, as well as vacation market.

## MANAGEMENT

Initiate dialogue with residents regarding relocation options and opportunities.

Adopt codes and policies controlling low-density, auto-oriented development along Highway 90. Such codes will form best leverage in negotiating higher quality planning and design.

Enlist services of non-stake holding facilitator to manage dialogue and steer consensus between public, private and institutional sectors on many sensitive issues facing moving forward.

## FUNDING

Mississippi Recovery Fund

Mississippi Emergency Management Agency  
FEMA

Mississippi Development Authority

National Trust and the AIA offer small relief programs.

*These sources may already be apparent, but Waveland's long-term prospects (especially in the area of private investment) will be improved if there is a physical plan that can be used as a goal and a marketing tool and a phased time schedule for implementing it.*



### ALTERNATIVE 1: HOUSES IN VELOCITY ZONE

Beach Boulevard alternative incorporating a boardwalk for pedestrian traffic and houses built above sea level lining the narrow streetscape.



### ALTERNATIVE. 2: NO HOUSES IN VELOCITY ZONE

Beach Boulevard alternative using natural habitat as a strategic barrier and moving the houses beyond the velocity zone.

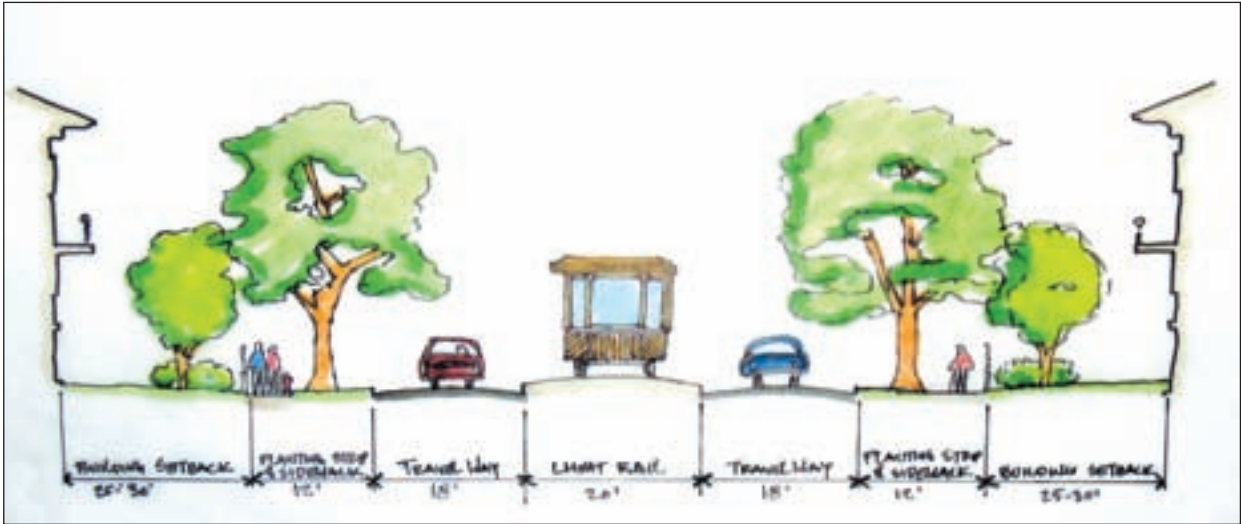


TROLLEY STOPS PROPOSED

The proposed transit-oriented development (TOD) would strengthen regional connections with a trolley line from Waveland to Bay Saint Louis.



The proposed Central Avenue Trolley stop would be conveniently located next to the St. Clare school town green.



A trolley street section.



Nicholson Avenue, existing conditions.



Transit-oriented development proposed for Nicholson Avenue.





### COLEMAN AVENUE

Reestablish Coleman Avenue as the heart of the community with an arts district, live/work buildings and trolley line. Using tree-lined curbs and sidewalks, maintain narrow streetscapes with parallel parking on both sides of the street.



Old Spanish Trail streetscape.



Existing condition of area bordered by Waveland Boulevard and the Old Spanish Trail.



Through coding allowances and incentives, this area could transition into vibrant new neighborhoods and more than double its tax base.





# BAY ST. LOUIS

This arts community of 8,000, marked by its galleries and performance spaces, sustained heavy damage to 80 to 90 percent of all its commercial and residential structures. This includes the town's historical buildings, many of which were completely obliterated.

Design team members are analyzing how to rebuild these historical buildings, while restoring the town's housing options. Several housing ideas are under consideration, such as courtyard buildings and other similar types, plus even more sturdy residential buildings that can be sited in a "mother and children" configuration, where buildings are layered with the beachside ones being hardened to serve

as protective buffers for the smaller, less-expensive dwellings behind them.

Bay St. Louis also faces design challenges in its connective tissue. Preliminary plans outlined attempts to link the town's three traditional commercial areas into a greater whole. Additional routes to I-10 might be pursued, plus connecting an existing historic train depot to the traditional main street. Several "gateway" opportunities exist also, including an entry from Highway 90 to the beach, and between Waveland and Bay St. Louis. Improvements to Beach Boulevard are possible, including expanded parking, stronger pedestrian links, and eased congestion.

**Above: An aerial view of the proposed waterfront.**



**The Bay St. Louis team led by Bill Dennis (center) works on a design proposal for the neighborhood.**



# Strategic Actions

## DESIGN ACTIONS

Rebuild and enhance the downtown, Old Town and beachfront areas with attractive new civic spaces and amenities.

Create a network of walkable streets and green-spaces that tie together existing centers.

Rebuild the existing historic beachfront homes in a more hurricane-resistant form and build additional homes behind them.

Create a new “front door” by reconfiguring the Highway 90 approach and adding new civic space.

## POLICY ACTIONS

Change zoning and coding to build desirable new features, enhance local character and enhance economic vitality.

Create a new “Rebuilding Resource Center” that will distribute design, construction and finance information, including historic construction information.

Develop a long-term affordable housing strategy.

## MANAGEMENT ACTIONS

Place emergency shelters in the actual locations where residents will return and in configurations suitable for the future.

Provide awards and fund modest projects that will add to the character of the street and/or public space.



An overall view of Bay St. Louis's neighborhoods, districts and corridors.

## OVERALL PLAN

Neighborhoods, districts and corridors make up the primary components of a town. Bay St. Louis has been fortunate in its past to have many strong neighborhoods. With the rebuilding comes the opportunity to strengthen existing neighborhoods, establish new neighborhood centers, form districts around institutions like Hancock Memorial hospital, and use the local and regional corridors to link the neighborhoods together in a way that encourages interdependence and a fuller, richer identity as a town.

The neighborhood unit is based on the 1/4-mile, 5-minute walk from the center to the edge; it contains a mix of uses and housing types and incomes; it encourages walking and biking; it provides for basic needs and civic expression within a reasonable distance: and, finally, it connects with a complex network of streets, sidewalks and paths to other neighborhoods and to a long walk in nature.

## ST. STANISLAUS CAMPUS

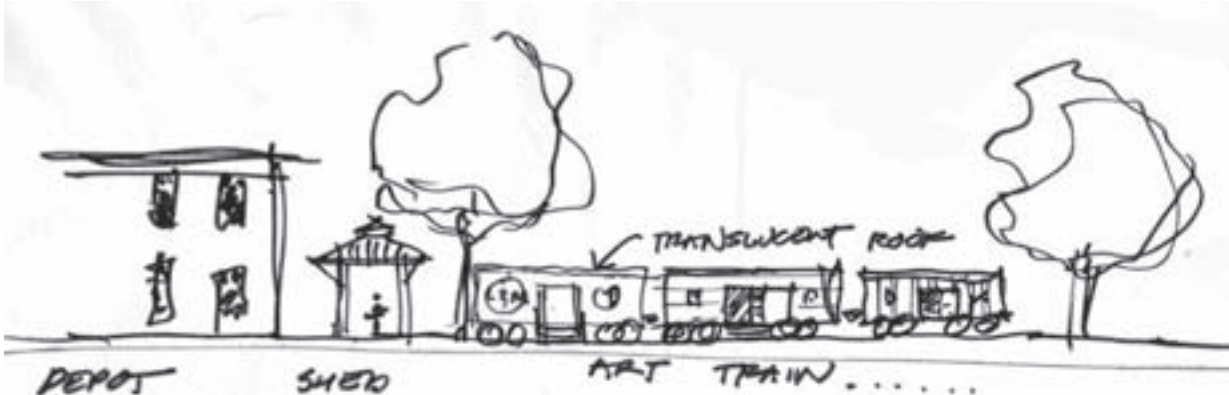
The Campus of St. Stanislaus has been a pivotal institution in the life of the community for many



A plan for St. Stanislaus campus that better connects it to the neighborhood.

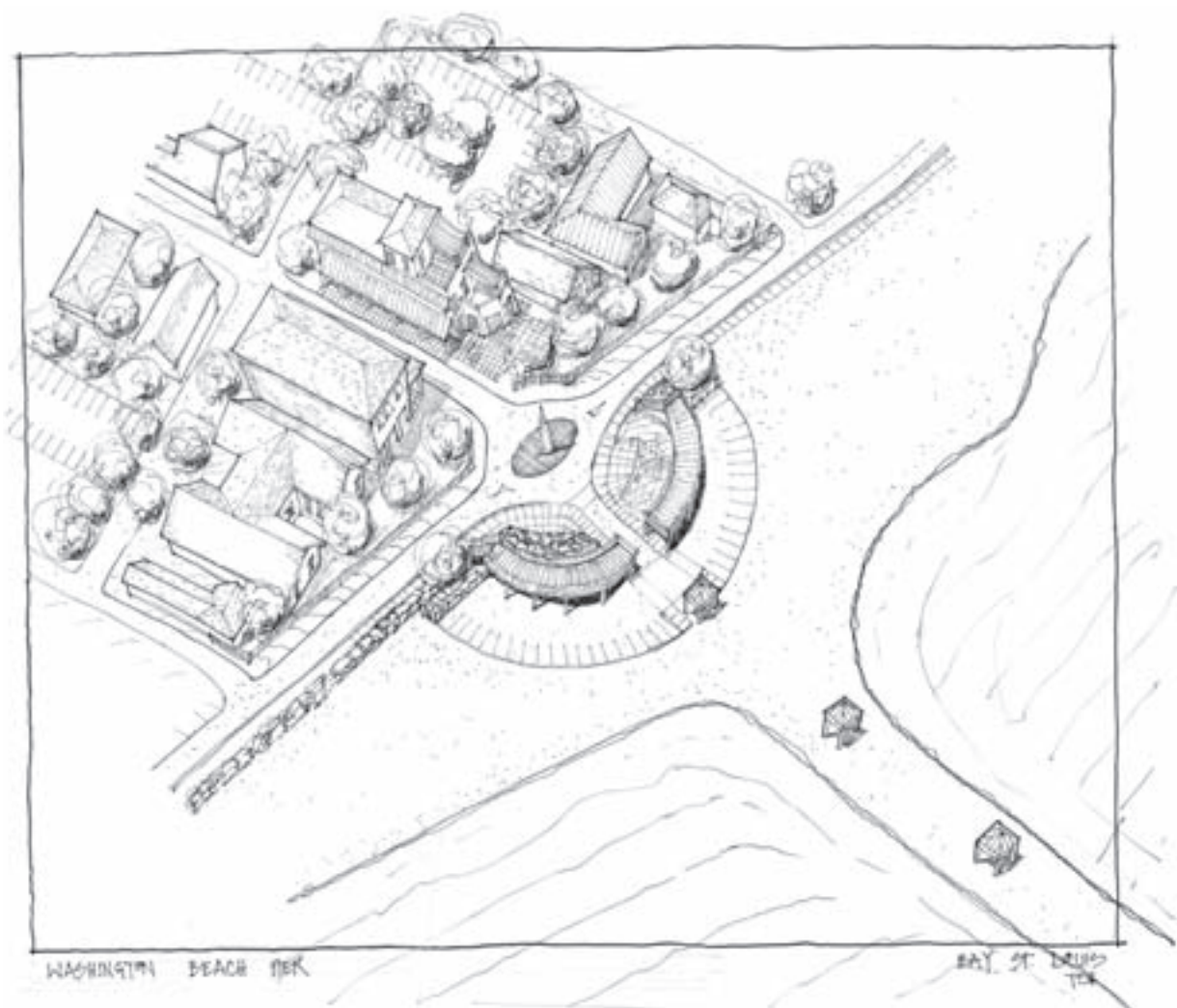
years. While many buildings survived with various degrees of damage, now is the time to make long-term decisions while responding to short-term needs. Many campuses within towns are responding to growth issues by carefully defining resources to be shared. The primary charge of educating and enlightening young men and women finds expression in connection to the community, for both service and culture.

The Depot District to the north is one opportunity to create another students art area to the south of the square. Internal courts on the campus and a rebuilt front help connect the institution to the cloister tradition, the source of scholarship in dark times.



The Art Depot is a possible location to reconstitute the arts community while rebuilding galleries, studios and living spaces on Main Street and elsewhere.





**WASHINGTON/BEACH PIER**

Washington Beach Pier is the original landing area for the French and was the site of a small commercial area up to the present day. The strategy is to rebuild on these strengths creating, again, a small mixed-used area with an adventure eco-tourism focus. Housing could be part of this mix situated above the retail spaces. A small roundabout would serve as a focus and traffic-calming device, and the present parking lot would be reconfigured in a radius around the monument set slightly below the road behind native plants and oaks. Above the inner layer of the parking would be a trellis/viewing platform built on the idea of the “shoo-fly,” a traditional means for getting above the pesky critters.

Small kiosks (for summer services) lead the way to the fishing pier to the east.



**OVERALL PLAN OF WASHINGTON/OLD SPANISH TRAIL NEIGHBORHOOD**

Washington and Old Spanish Trail are two major local roads that intersect to form a neighborhood center. Presently containing a BBQ restaurant and other small business, public buildings and additional housing would give it a stronger sense of place. Small arcs and diagonal parking areas would make this convenient and attractive for daily use by nearby residents.

This plan, as well as the other neighborhoods, shows a suggestion for breaking down the extreme length of the existing blocks with small pathways allowing children and locals another means of traveling around the neighborhood and to downtown. Interior block parks (rambles) are particularly safe for children and would be good locations for childcare. Other infill housing is shown in dark red coded in form and materials to be compatible with existing homes.

**MAIN OLD SPANISH NEIGHBORHOOD**

Main and Old Spanish Trail is the center of a vibrant, artsy community. The long blocks are made charming by the narrow pavement, live oak trees and modest but colorful housing. The slight jog at Main and Old Spanish Trail make for a renewed neighborhood center which builds on the existing business with additional mixed-use buildings allowed. Potential exists for the creation of a small crescent of green north on Old Spanish Trail and a much larger parkway connected to St. Stanislaus playing fields to the south.





## US 90

From the west, US 90 is the beginning of Bay St. Louis and yet there is no distinction from the car-dominated land-use that comes before it. The boulevard section and roundabouts, planted with multiple rows of live oak trees, lend an opportunity to restore the town to its roots (literally). All of these elements will act to slow down traffic but allow greater flow making the experience better for both the walker and the driver.

Here, the present Hancock Memorial Hospital is suggested as an anchor for a district of medical and other office use, as well as various types of housing, including senior and assisted living. The emphasis on health would support retail uses for sports and outdoor supplies and could connect with the greenspace network.

To the east, US 90 is presently a state highway more appropriate for suburban development. To maximize both economic and social value, it

should be reconfigured as a boulevard with various shaped roundabouts replacing inefficient signalized intersections.

The roundabouts will provide places for sculpture and signage calling attention to the unique character of Bay St. Louis and encouraging passersby to loop into the historic town to stroll a bit. New mixed-use buildings defining the boulevard would give a more appropriate 'face' on the town and act as centers for neighborhoods near US 90.

## COTTAGE COURT TO REAR

Long blocks and lots, a legacy of the French survey unit called arpades, leave odd bits of land on many lots that can be used for certain types of infill. This "mother and daughters" approach of raised cottages below is one such typology. Others might be courtyard housing, townhouses, granny flats, and mansion houses with multiple units.

All of these housing types are important strategies to hold at bay the simplistic density and value increase that high-rise buildings represent. Owners of houses lost in Bay St. Louis will be hard pressed to build back the homes they enjoyed unless there is a way to fund the additional costs of new, hurricane-resistant construction. Added density on linear lots provides that opportunity to remake the community in its own image.



Cottage court to rear of rebuilt Wagner House.



## VIEW OF RECONSTRUCTED MURRY/THOMPSON HOUSE

The traditional houses of Bay St. Louis, and along Beach Boulevard in particular, contributed much to the character, history and family ties to the town. Their loss is particularly dear but will be compounded if what is put back is not up to the standard of what existed before. High-rise condos, mid-rise hotels and mega-mansions will all erase permanently the memory of the uniqueness of this boulevard.

Therefore, it is proposed that the form (height, width, and depth) of the previous homes be codified, with any additional density to happen to the rear of these homes; that materials, colors, and details from Bay St. Louis' history form the basis of the rebuilding; and that a faithful reconstruction of any historic structure receive historic tax credits. Other styles of architecture should be allowed but within a narrow window of form and material.





Illustration: Ben Pentreath

# PASS CHRISTIAN

**Above: A proposed new civic square is at the heart of a renewed Pass Christian town center. A new City Hall sits between a library and municipal building.**



Another of the more hard-hit communities along the Mississippi Gulf Coast, Pass Christian sustained commercial and residential property damage in the 80 to 90 percent range. The community of 6,500 residents prides itself on its casual, fishing village atmosphere — ambience residents want to retain while they rebuild their tax base. With the possible departure of the Wal-Mart, which was destroyed in the storm, their work is cut out for them.

New buildings are in order to replace the important and economy-driving ones that were wiped out by Katrina. A new St. Paul's Church will allow parishioners to remain in their hometown. A new Wal-Mart — one that respects a more human scale — can continue to provide residents' daily needs. A proposed City Hall would be raised a story above grade, providing an elegant arcaded space on the ground level. This space could host a farmers' mar-

ket, festivals or start-up businesses. Within the arcade a stairwell or elevator could lead to the upper level, where the town offices would be located.

Planner Howard Blackson related additional ideas generated by the Pass Christian design team. "We're thinking they could become a magnet for regional tourism that's not casino-driven," he said.

One option is to create a second marina, allowing the original to remain a working marina for the oyster fleet; the second would be a center for recreational boating and fishing. With golf, a restored beach boardwalk, and other activities rounding out the local offerings, visitors could be drawn to a hotel and a modest number of condos — built on the model of the lost antebellum homes, with four or so units per building — that would help to restore the tax base.



The Pass Christian planning team meets with local residents.



Ben Pentreath runs through some of the team's ideas at a pin-up session.



Residents comment on the proposed plans at the charrette final presentation.



# Strategic Actions

**GOAL: RECOVER ECONOMIC SUSTAINABILITY BY RESTORING THE TAX BASE.**

**Strategy 1:**  
**Identify areas of potential intensification of redevelopment.**

Specific Actions:  
Prepare and adopt the following tools:

- Downtown concept plan (loosely bounded by Scenic, Market, David and 2nd Streets), which incorporates mansion flats, condominiums and mixed-use housing into the plan.
- Downtown SmartCode.
- Downtown Architectural Pattern Book.
- Architecture/Engineering Plans for a demonstration project.

Timeline: 1 year.

**Strategy 2:**  
Rebuild Wal-Mart and intensify its existing site to recover and increase the approximately \$724,000 per year it had been contributing to the city's annual budget.

Specific Actions:

- Local leaders and members of the Governor's Commission present the walkable, mixed-use alternative site plan (draft) for the existing Pass Christian site to Wal-Mart executives at its Bentonville, Ark., headquarters.
- Preparation and adoption of a missed-use Wal-Mart village plan and SmartCode that includes a diversity of housing types (such as workforce housing) and building types (such as mixed-use housing).

Timeline: 6 – 12 months

**Strategy 3:**  
Encourage non-casino regional tourism.

Specific Actions:

- Design and permit an additional marina for recreational boating and fishing.
- Partner with regional agencies, local governments and the Mississippi Tourism Bureau to market eco-tourism and boating.

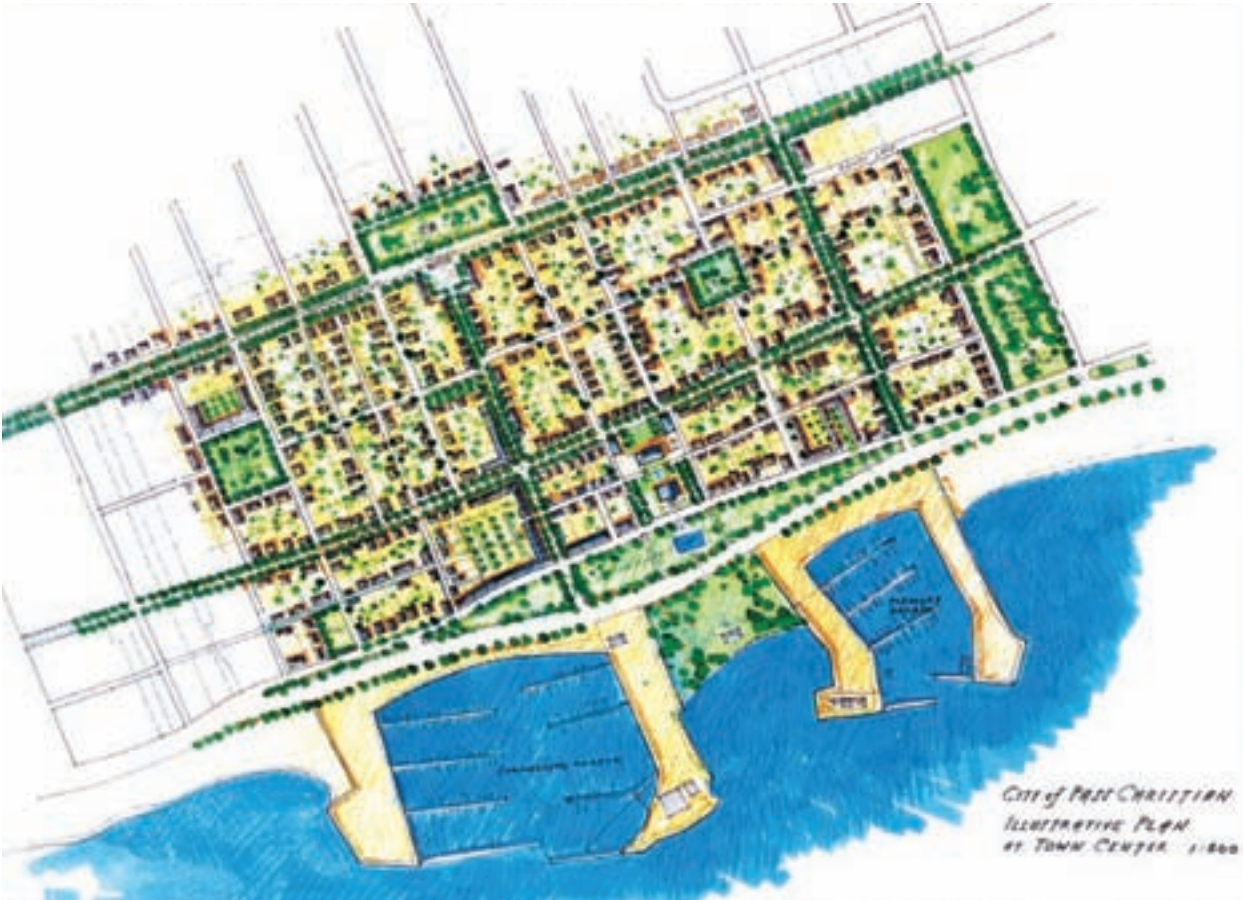
Timeline: 3-5 years.

**GOAL: SUPPORT AND UNITE THE COMMUNITY BY RESTORING THE CIVIC REALM**

Restore the civic heart of the city.

Specific Actions:

- Rebuild the central gazebo in War Memorial



This drawing depicts the proposal for the rebuilding of downtown Pass Christian. A new Civic Center is brought into the heart of the town surrounded by a network of attractive, tree-lined streets. A second marina is added to allow for both a pleasure boat marina and fishing boat marina.

Park, City Hall (arcaded space on ground floor for farmers market, festivals, startup businesses, et.), library, St. Paul's Catholic Church and the municipal society building by doing the following:

- Site these structures in the downtown concept plan and SmartCode.
- Create a strategy for site acquisition and rebuilding.
- Conduct community-wide public hearings to determine the architectural design of these structures.
- Consider building City Hall with first floor cast concrete washout structure for temporary business to use prior to second floor completion.

Timeline: 6 months – 3 years.

**GOAL: SUPPORT AND UNITE THE DIVERSE INTERESTS IN THE COMMUNITY DURING THIS TIME OF CRISIS AND HEALING.**

**Strategy 1:**  
Provide professional services for the community.

Specific Actions:

- Community members should research professional facilitating services and make proposal to the city.
- The city hires a professional facilitator and provides meeting rooms and public announcements.

**Strategy 2:**  
Enhance civic engagement and public outreach.

Specific Actions:

- Establish an outlet for public comment and communication by designating community ambassadors that represent local churches and neighborhoods.

Encourage participation by having facilitation meetings in various locations.

Timeline: Immediate

**GOAL: CITYWIDE REBUILDING**

**Strategy 1:**  
Provide the tools necessary to allow property owners to rebuild in the most expedient way while also honoring the city's historic building heritage.

Specific Actions:

- Prepare and adopt a citywide SmartCode.
- Update administrative procedures to allow easier permitting.
- Work with federal, state and regional entities to create incentives tied to rebuilding.

**Strategy 2:**  
Designate the perimeters for the project.

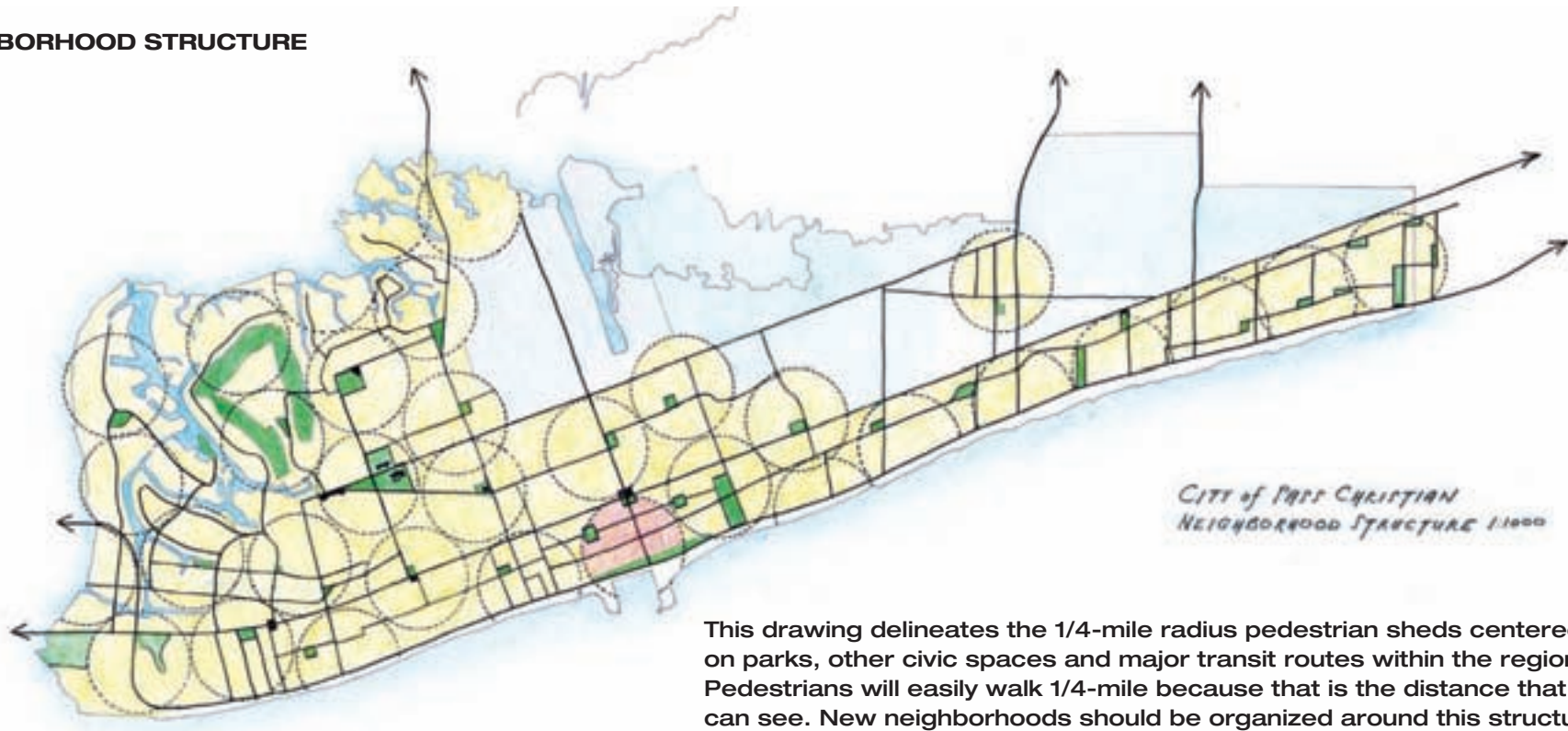
Specific Actions:

- Create incentives for property owners to participate as equity partners.
- Consider a master developer for timely rebuilding of the plan.

Timeline: Immediate - 3 years.



NEIGHBORHOOD STRUCTURE



This drawing delineates the 1/4-mile radius pedestrian sheds centered on parks, other civic spaces and major transit routes within the region. Pedestrians will easily walk 1/4-mile because that is the distance that they can see. New neighborhoods should be organized around this structure.

REBUILDING THE TOWN CENTER

The town center should develop in the form of complete and integrated neighborhood blocks that contain housing, shops, work places, schools, parks, and civic facilities essential to the daily life of the residents. Each neighborhood should build a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries from more urban areas in the town center to more rural areas along the rail line.

The community should maintain its ample supply of squares, greens, and parks whose frequent daily use is encouraged through placement and design. These open spaces are important during emergencies such as future hurricanes. Streets, pedestrian paths, and bike paths should contribute to a system of fully connected and interesting routes to all destinations.

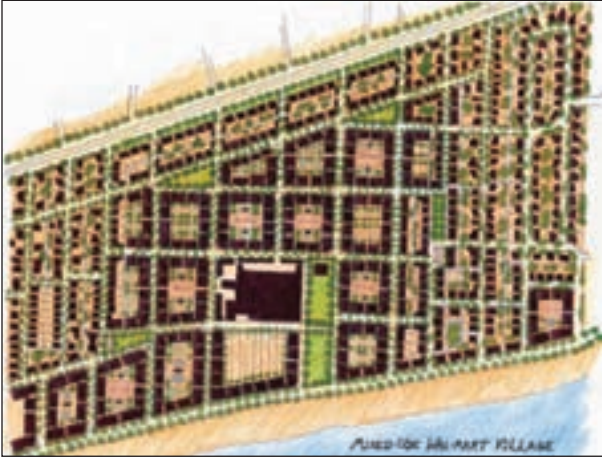


A new network of green public spaces can be established at the center of Pass Christian. This will be very important in recreating an extremely high-quality environment for residents and visitors alike. This plan is loosely based on the model of Savannah, Ga.



The proposed City Hall is raised on an elegant arcade-covered market. The non-habitable first floor below is designed to withstand flooding and can be used for a weekly farmers' market or to provide startup space for incubator businesses.





### FROM BIG BOX TO MIXED-USE VILLAGE

Wal-mart's large footprint and parking requirements present unique challenges that can threaten small town character. To minimize the large scale and hide offensive views, the warehouse and parking lot can be "wrapped" with liner buildings of smaller retail store-fronts and even second floor housing. The thoughtful location of apartments, townhouses, and detached houses all within a five-minute walk of retail and green space completes the beautiful Wal-mart Village.



These drawings show the damaged Wal-Mart store designed as a mixed-use walkable block. Designed this way, and wrapped with a combination of smaller boutique stores, Wal-Mart can contribute to a fine grained downtown character.



### TEMPORARY HOUSING

The FEMA trailer layout plan, which incorporates traditional town planning principles and FEMA's Transitional Housing Guidelines, will eventually transition into complete neighborhood blocks. The trailers are arranged to include streets, building fronts and backs, with a neighborhood center and edge. A temporary open retail market, incorporated into the temporary trailer neighborhood would, incubate new and existing businesses while providing goods and services to the residents.

The diagram pictured right shows how temporary FEMA trailers can be located on future green spaces within the town in a way that will create walkable streets and neighborhoods instead of trailer parks.







# LONG BEACH

Above: A proposal for Long Beach includes repairing and expanding the marina, re-aligning Highway 90 and concentrating mid-rise, high-density buildings along the boulevard.



Long Beach hosts the University of Southern Mississippi, which was forced to relocate its campus after Katrina's damage. One bright spot in the destruction was the survival of the university's massive Friendship Oak, believed to be more than 500 years old.

Aesthetics and practicality are merging in the developing plans for Long Beach. A scenic parkway could wind through a wetlands area to the north of downtown, creating a more direct route to I-10.

Responding to traffic flow problems on Main Street, design team members envision the creation of a civic square half a mile from the beach at the north end of Main Street, which would anchor that street and help to free up traffic. A pair of pedestrian-oriented streets could connect the university campus to Main Street.



Dhiru Thadani, team leader for Long Beach, discusses strategy with charrette members.



# Strategic Actions

To encourage a pedestrian environment in Long Beach, the following changes are recommended:

- Create a scenic Beach Boulevard by realigning Highway 90 to the north to accommodate Coast Zone Management Regulations.
- Extend Jeff Davis Street to the north past Railroad Street to intersect with Klondyke Road. Terminate this street at a civic square.
- Extend Klondyke Road south to intersect with Highway 90.
- Transform Railroad Street to a parkway with a wide, landscaped median.
- Insert several north-south residential streets to subdivide the elongated blocks and increase connectivity to the Gulf coastline.
- Incorporate a system of alleys to provide a right-of-way for utilities and access for service vehicles and garages.
- Incorporate several street crossings across Railroad Street to increase connectivity from the north side of the tracks to the Gulf coastline.
- Gateways to Long Beach should be strengthened.
- Southwest neighborhoods, Pitcher Point and Boggsville, should have a town green along the coastline.

## THE MASTER PLAN

The proposed Master Plan for Long Beach is based on traditional neighborhood principles and development patterns that reflect the physical and cultural context of the area. The principles that were incorporated in the Master Plan include:

A composition of civic and community buildings balanced with open spaces foster an interactive environment to enrich the lives of the residents and visitors.

Educational facilities that encourage and promote life-long learning.

Intermediate access to nature and hiker-biker trails.

Places for passive and active recreational activity.

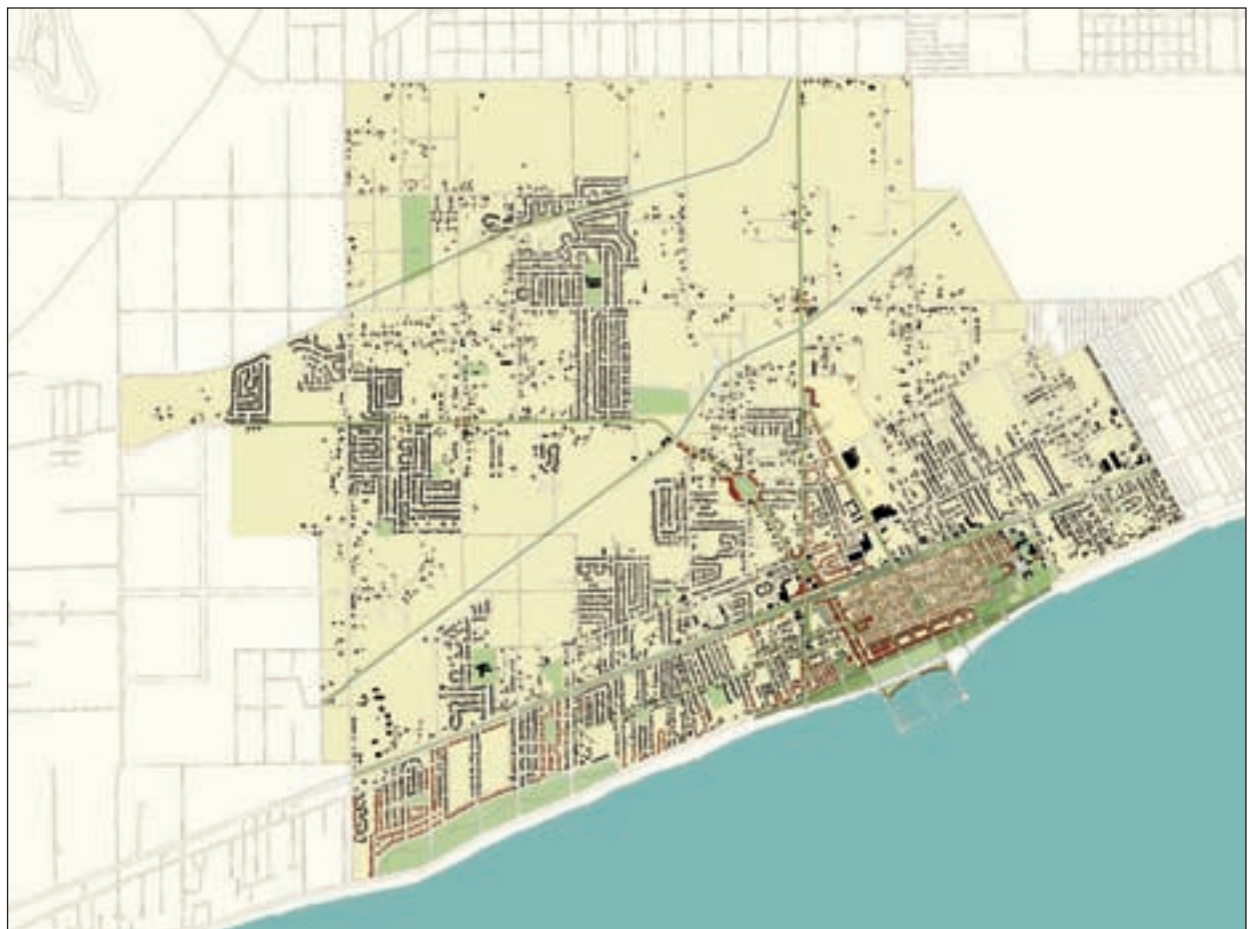
Housing types for people of a variety of income levels and ages.

A landscape palette consistent with the climate and culture of the Gulf Coast.

Sustainability measures that advance the long term value and viability of the town.

Expansion and improvement of the existing marina to energize economic development.

A clear set of guidelines to inform future speculative development.

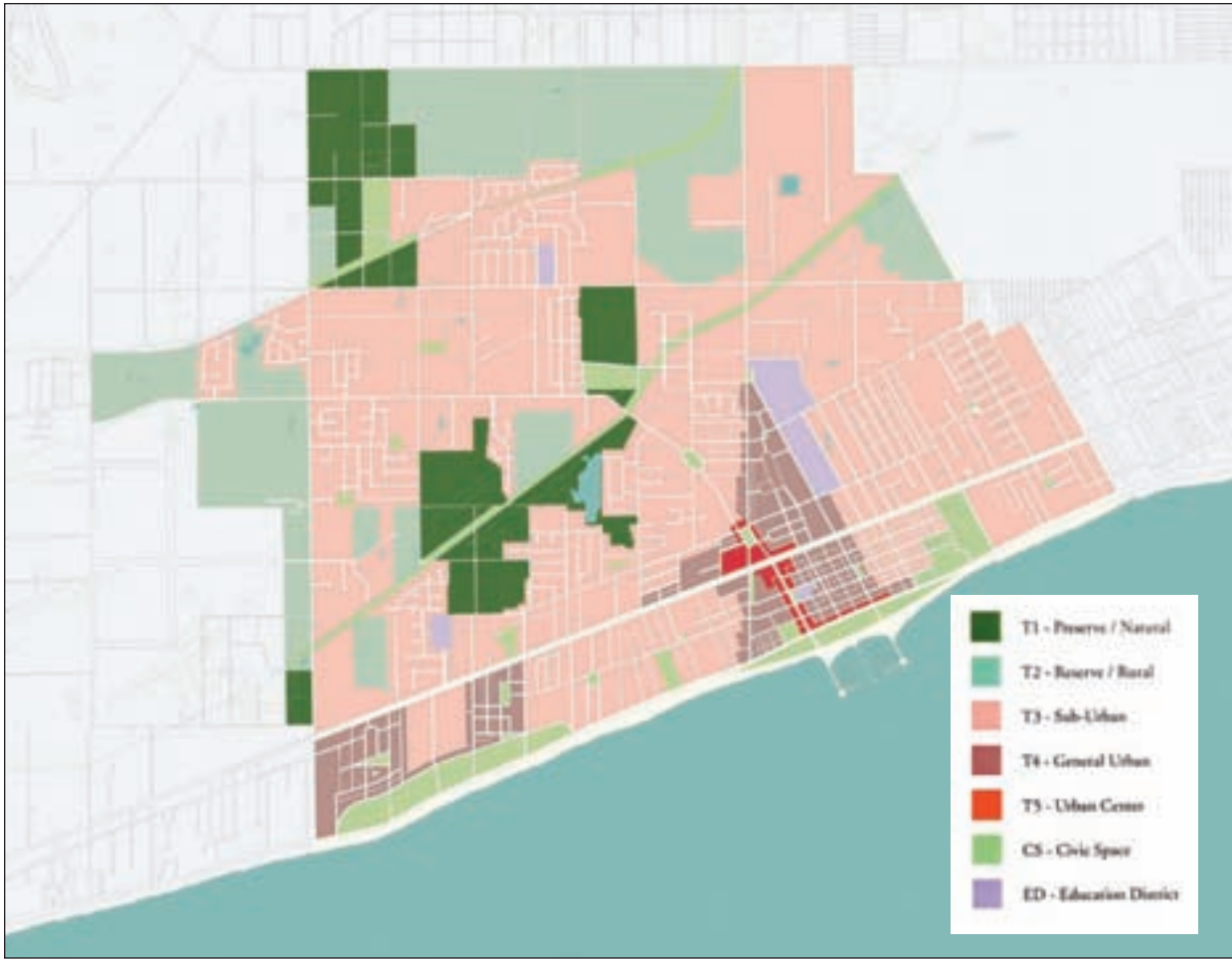


## LONG BEACH WATERFRONT PARK AND MARINA

The triangular center of Long Beach, is defined by Cleveland Avenue to the east, Klondyke Road to the west and Highway 90 to the south. This aerial rendering illustrates recommended changes to the central area of Long Beach. The marina would be repaired and expanded, and Highway 90 would be realigned to form the scenic Beach Boulevard. The planning guidelines prescribe that mid-rise, high-density buildings (8 to 10 stories) be concentrated along the boulevard to form a distinguishable urban composition that defines the northern edge of a proposed 15-acre water front park: "Oak Park."







Codes may be based upon six transect zones that describe the physical character of place at any scale in the context of density and intensity of land use.



There are four proposed gateways as part of the charrette master plan for the city of Long Beach.



Proposed pedestrian sheds and thoroughfare framework. A pedestrian shed is defined as a five-minute walk from center to edge of the neighborhood.



**INTERSECTION OF JEFF DAVIS AND RAILROAD STREETS**

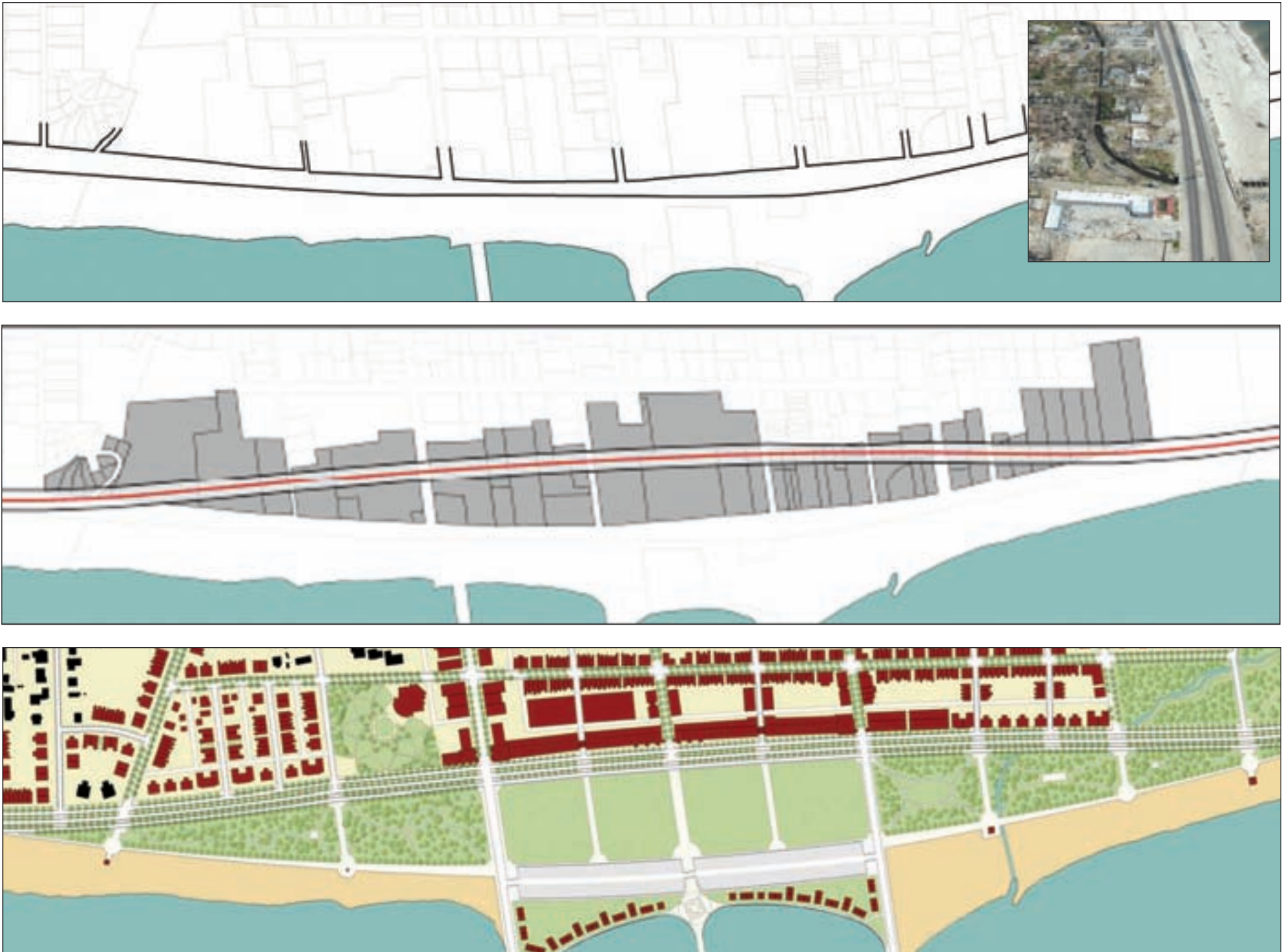
The rendering illustrates the proposed reconfiguration of the intersection as an identifiable gateway into Long Beach. The confined space of the roadway would open to the public space announcing an entrance to the town. The space is defined on three sides by civic buildings that will act as the first visual marker when entering the City of Long Beach. Inset: Existing condition.



**GATEWAY INTO LONG BEACH ALONG KLONDYKE ROAD**

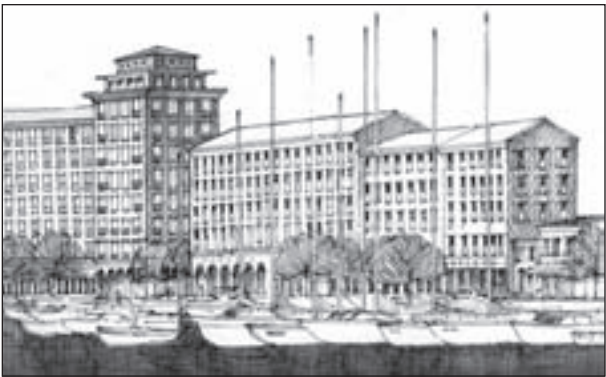
The aerial photograph above shows the existing condition of the intersection of Cleveland Avenue and Klondyke Road. The rendering to the upper left illustrates the transformation of this intersection to a identified gateways into Long Beach, for visitors arriving from the north along Klondyke Road. The drawing illustrates the creation of a rational public space along the roadway. Defined on three sides by civic buildings, the space is will be the first visual marker that one is entering the City of Long Beach. Inset: Existing contidtion.





**REALIGN HIGHWAY 90**

The existing alignment of Highway 90 (top) passes along the southern edge of Long Beach. The center and bottom images (above) illustrate how the realignment of the highway could be developed as a scenic route — “Beach Boulevard.” Improvements would include a tree-lined median, trolley service that connects to other coastal destinations, and a 15-acre public park located adjacent to the marina.



Sketch of the marina and a mixed-use building facing the waterfront.

Aerial perspective view of the marina and waterfront park showing realigned Highway 90.





Illustration: Michael Imber

# GULFPORT

Full of hope for the redevelopment opportunities that Katrina's destruction offers, Gulfport Mayor Brent Warr still intends to bring a renaissance to the Mississippi Coast's largest city (pop. 71,000), with its large-scale port, faded downtown financial district, and timeworn antebellum mansions — many of which were destroyed in the hurricane. Reporting heavy damage to 80 to 90 percent of its commercial and residential buildings, Gulfport nevertheless retains its potential to become a destination point for international tourism.

Gulfport hosts the only area along the Gulf Coast that has abundant land south of Highway 90. This area could become an extension of Gulfport's downtown, redeveloped into a mixed-use "dock-

lands" district that includes not only industrial uses, but also residential, retail, cultural and park uses. Port operations might be consolidated on one finger of land, while developing another with a classic grand hotel and casino — with a seaside promenade worthy of Monte Carlo and an intimate relationship to the downtown. Add to this the city's ability to dock cruise ships and you have the formula for a thriving, world-class destination.

Adding to Gulfport's international appeal would be a raised, European-style walled viaduct with truck and rail lines above, and stores and offices below. This arrangement would help to keep downtown street traffic moving while allowing trains to flow to and from the city's active port.



The charrette team takes a field trip to Gulfport.



Mayor Brent Warr, team leader James Moore and Joanna Alimanestianu.

Above: A grand hotel with casino could be sited in the middle of the central pier.



# Strategic Actions

With extensive input from elected officials, city staff and community representatives, the team identified the following strategic actions:

- Help preserve undeveloped land west of the current outlet mall as a nature preserve.
- Reposition Highway 49 as “Broadway” within the downtown.
- Turn Cowan Road into a boulevard from Beach Boulevard to at least Pass Road.
- Pursue a downtown campus for a university looking to relocate to Gulfport.
- Preserve and enhance the current Baptist College campus along Beach Boulevard.
- Establish pedestrian connections between established neighborhoods.
- Establish small civic/commercial centers within established neighborhoods.
- Design a neighborhood center for the Turkey Creek neighborhood.
- Redevelop the neighborhood center for the Old North Gulfport neighborhood.
- Develop a coherent master plan and redevelopment strategy for the downtown.
- Develop a CRA and a TIF district within the downtown.
- Establish a business improvement district (BID) within the downtown.
- Establish a main street program within the downtown.
- Work with the state to create enabling legislation for the transfer of development rights (TDRs).
- Prepare and implement a landscape master plan for the city.
- Develop a business incubator program for entrepreneurs within the city.
- Determine key locations within the city for the development of live-work units; prepare model unit types for these locations.
- Devise a master plan and redevelopment strategy for Pass Road from Hwy 49 to the city line.

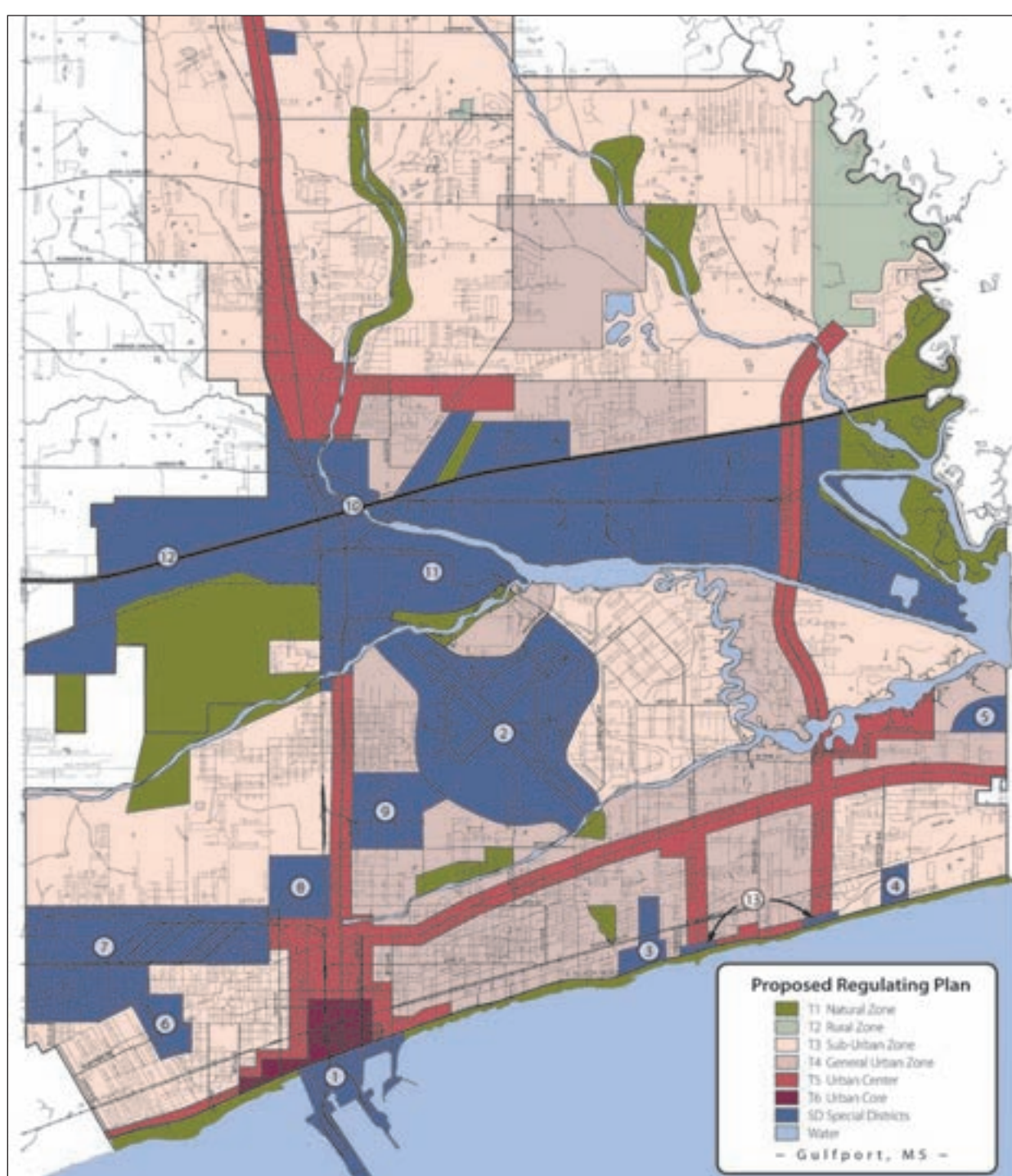
## PRIORITY ACTIONS:

1. Redesign and rebuild Jones Park, immediately, as one “perfect place.”
2. Relocate northward the CSX railway tracks that currently run along the ROW parallel to Hwy 90.

3. Redesign this former CSX right of way as an urban boulevard that includes the potential for future transit.
4. Develop urban design guidelines, including architectural standards, for all major redevelopment areas within the city.
5. Regain ownership of the eastern portion of the port facilities from the state.
6. Replan and redevelop the port into a combined facility including industry to the west, and tourism, recreation, cultural and commercial activities to the east.
7. Create a citywide network of parks and accessible open spaces, with greenway connectors throughout the city.

## ADDITIONAL ACTIONS:

- Negotiate with MDOT to insure that Highway 90 remains a four-lane section for its entire length within the city.
- Relocate truck and rail access to and from the port to a single facility, including a viaduct over Highway 90.
- Reposition Highway 90 as Beach Boulevard.
- Acquire the Veterans Administration facility from the Federal government and reuse and redevelop it as a national medical facility.
- Replace the city’s current zoning code with the SmartCode.
- Create inducements to help relocate suburban retail to the downtown.



## PROPOSED REGULATING PLAN

A necessary precursor to adopting the SmartCode within the community is the mapping of the existing and proposed future conditions according to the zones defined by the Transect. There are 13 special districts within the community, ranging from the port to the airport to the industrial areas along the Bayou and the retail and sport-related zones parallel to 1-10.

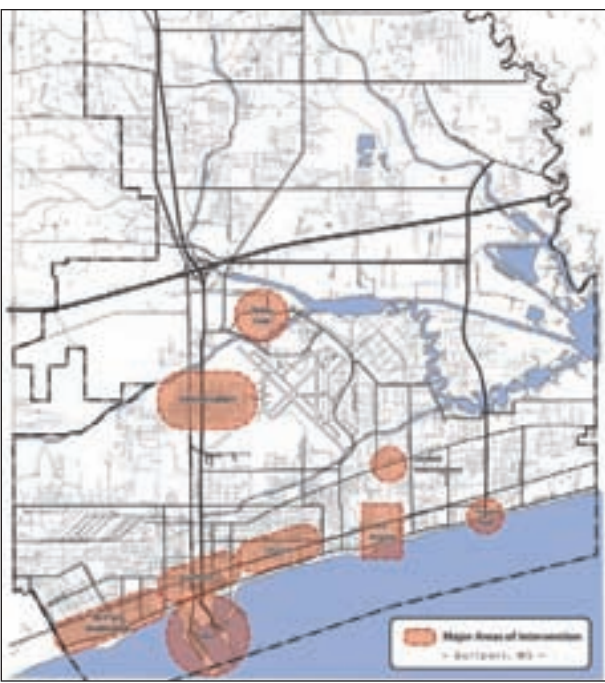




**PUBLIC PARKS AND OPEN SPACES**

A key goal in the design charrette was the creation of a formal system of parks and public open spaces and the public links between them.

The proposed plan shows the existing parks, the proposed parks, and links between the parks and the communities. The network is a systems of loops that make it feasible for a person to bike or walk continuously and end up where they began, on a large or small scale.



**AREAS OF INTERVENTION**

Significant redevelopment is also recommended for other neighborhoods along the beach in both the entire West Side and areas of the East Side, such as the VA Hospital site and the beach end of Cowan Road. Historic neighborhoods such as Old North Gulfport, Soria City and Turkey Creek are also earmarked for significant improvements.



**THE PORT OF GULFPORT**

To comply with FEMA regulations two levels of parking are added everywhere.

Main Street acts as the principal space and gateway linking the downtown and port. It bisects the port, with a civic building (a library or museum) and Jones Park to the East and four-story high mixed-use buildings to the west. The Aquarium will extend east and west as needed.

A Grand Hotel (with casino) is sited in the middle of the Central Pier, south of the Yacht Club.



Main Street looking south toward the port.



**Proposed Plan of Downtown Gulfport**

**DOWNTOWN — THE VISION**

The vision for Gulfport's downtown described by many portray an economically prominent, historic settlement rich in tradition and culture continually evolving into a bright and enduring jewel along the Mississippi Gulf Coast. Gulfport will grow into a walkable, diverse, compact and sustainable environment that protects and enhances its historic buildings, streets, parks, and plazas; nurtures commerce and entrepreneurship; promotes new architecture, art, music, sports, entertainment, and other cultural expressions that fit into the unique place that Gulfport once was and will again become.

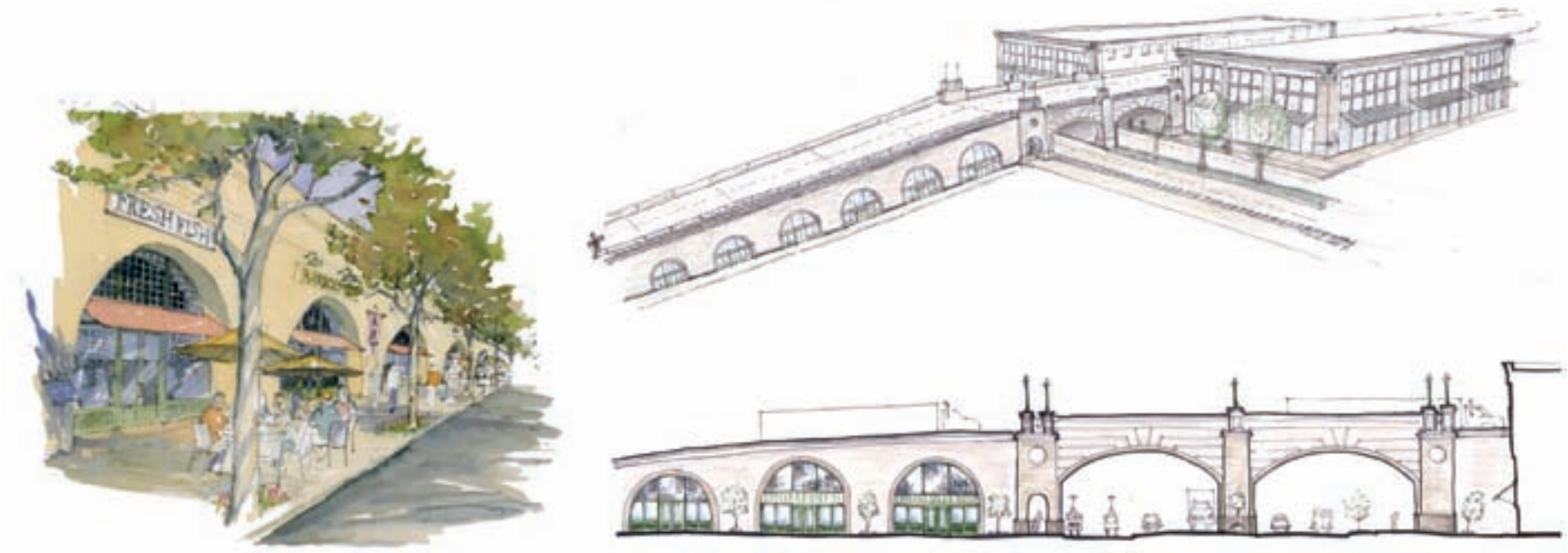


THE PORT VIADUCT

A major player in the city's local economic system and a transport system of truck and rail is necessary to daily operations but are inhibited by the

proximity to the intersection of Beach Boulevard and 25th Ave. This intersection will be central hub of the proposed revitalization which means the use of a viaduct structure to create usable space

below the roadway minimizing the visual impact of the overhead traffic and physical structure. The space below would be used for markets, restaurants and retail.



THE WEST SIDE

These neighborhoods were hit very hard by Katrina. The preliminary flood surface elevation maps for West Beach include new, higher elevations for habitable floors in much of the frontage along Beach Boulevard. This means that if new FEMA maps follow these preliminary indications, the ground floors of buildings within this area could not be used for anything but automobile parking. As

much discussed in the Charrette, designing single-family houses with only parking on the ground floor tends to lead to awkward and undesirable house designs. Many of these properties in this area are currently zoned for multifamily housing and/or commercial or mixed-use development, and a considerable amount of interest has been expressed by developers in building housing in these areas at higher densities.

THE EAST SIDE: REDEVELOPMENT

Demolish all the existing buildings and rebuild a variety of housing types, from single family residential to higher density residential and live/work units on commercial arteries. Replace the center "sea of parking" with a public space that is part hard-scape and part green space.

The location of this shopping center, near schools, public transportation and housing make it attractive for redevelopment.



Proposed redevelopment of shopping center.



Broad Avenue transect of housing from a more rural condition (far left) to a more urban condition (far right).





# BILOXI

While Biloxi lost a relatively small number of buildings to Hurricane Katrina (20 percent), it has its own set of challenges to conquer. “We’re trying to repair damage done long before the hurricane by urban renewal” and other failed planning strategies, said Biloxi architect David Hardy.

One of the bad decisions was a loop road around Biloxi’s historic downtown that disrupted the traditional street grid. Attempting to redevelop Biloxi’s existing assets, Hardy and his fellow members of the design team are reestablishing the grid and proposing an infill strategy of four- and five-story buildings, with retail and office on ground floors and residences above. The new design potentially adds some 500 new residential units. Additionally, Highway 90 could be transformed into a more pedestrian-friendly drive, with an electric trolley or other type of public transportation.

It’s all in the name of expeditious delivery. The plan is straightforward and easy to sell, said Hardy. “[It’s] totally doable. We’d rather offer something like this than something farther out that will just sit on the shelf.”



Regarding the Biloxi plan, John Chamberlain (in back) offers economic advice to Stef Polyzoides (left), Liz Moule, Andrés Duany and Biloxi architect David Hardy, during a team discussion.





A strategy for reconstructing Biloxi.

# Strategic Actions

## CLEANUP

- Complete the cleanup process as soon as possible.
- Reconstruct the town green in the next six months and proceed with building around it to be completed in the next three years.

## PRESERVATION FOCUS

- Establish a set of criteria to assess damaged buildings that favor their preservation and consider demolition as a matter of last resort.
- Halt all arbitrary demolition. Resist the Berlin Syndrome. After 1945, planners there caused more damage through demolition than aerial bombings during the war.
- Preserve all marginal buildings by supporting owners to structurally stabilize and secure them from the weather as soon as possible.
- Conduct an immediate survey of damaged buildings and outline promptly a detailed process for their reconstruction or replacement.

## TRADITIONAL NEIGHBORHOOD RECONSTRUCTION

- Restore the fabric of single-family houses on existing lots in a range of traditional Mississippi house types.
- Accommodate temporary trailers in the front yards of lots; allow semi-permanent structures in the rear as accessory dwellings.
- Enhance and develop neighborhood centers in places where they already exist.
- Infill two and three lot, single-family house compatible, attached housing around neighborhood centers.

- Allow access to the Back Bay and the ocean for the residents of the East Biloxi historic neighborhoods.
- Build submergible houses to the green standard established for the entire Coast.

## DOWNTOWN REDEVELOPMENT

- Remove the Urban Renewal loop road and replace it with a traditional pattern of blocks and streets.
- Restore Howard Avenue to its traditional Main Street form.
- Preserve the small scale of the 18th and 19th century downtown.
- Introduce a mix of uses into the 15-block area that serve the neighborhoods of Biloxi and visitors with shops, restaurants and entertainment venues.
- Create a retail loop from the Beau Rivage and the Hard Rock Casinos to Howard Avenue to activate the retail.

## EAST BILOXI

- Restore the smaller-scaled grid of streets and blocks to accommodate higher-density condominium housing.

## CONNECT WATER STREET TO MEAUT STREET

- Create mid-rise condominium housing between the casino districts that respect the deep 100' oak tree setback and the small two-story scale of single-family historic homes.
- Accommodate the existing museums and introduce new cultural venues among the new housing projects.
- Preserve the character of Holy Land.

## CONNECTIVITY AND WALKABILITY

- Establish a new boulevard system throughout

the peninsula of Biloxi.

- Enhance Beach Boulevard as a world-class scenic thoroughfare from Gulfport to the end of the eastern point in Biloxi.
- Demolish the I-110 extension after the first peninsula exit, and reconnect the city's street grid by replacing it with a grand boulevard.
- Build a boulevard on the CSX train line and relocate the Route 90 bridge on this alignment.
- Complete the Back Bay Boulevard all the way to the Point.
- Establish a tram along the beach connecting all the commercial centers along Beach Boulevard, the downtown and the casinos.
- Establish a water taxi connecting the casinos.

## INFRASTRUCTURE

- Rebuild with hurricane- and flood-resistant infrastructure, incorporating sealed, below-grade utility lines and secure containments for water, power, communications and wastewater facilities.
- Make use of natural processes and buffer zones to provide the first line of defense in both protection of vital infrastructure and environmental quality.

## CODES AND ADMINISTRATION

- Introduce a new development code into East Biloxi immediately, and initiate the process of establishing a new form-based code city-wide.
- Name a master developer for the downtown to coordinate retail and mixed-use development there.
- Support the planning and building department with a establishments in the downtown core.
- Establish a park-once system and reduce parking requirements.



- Build 500 units of housing in the next 24 months.
- Introduce 200,000 square feet of retail into the historic downtown and 250,000 square feet in a lifestyle center across from the Beau Rivage casino in the next 36 months.
- Retain the civic buildings of downtown and introduce as many new ones as possible.

CASINO CORRIDOR/EAST BILOXI

- Delineate the casino corridor in three distinct East Biloxi areas: Across from the historic core, at the eastern point and on the Back Bay.
- Provide a high-end, pedestrian-friendly retail/entertainment district of about 200,000 square feet adjacent to the point in connection with hotels, waterfront activities, and continuous beach access.
- Casinos will occupy the inland side of Back Bay Boulevard and Beach Boulevard with gambling floors, retail, parking and hotel rooms. Their gulf side will house high-density condominiums and retail establishments.
- Provide a civic/cultural/arts presence adjacent to casinos.
- Establish four civic criteria for casino design: Respect the views and scale of surrounding neighborhoods, form pedestrian-friendly streets, form a continuous Ocean and bayfront promenade, and line all parking garages with buildings and uses appropriate to each given context.

BACK BAY HARBOR

- Create middle-density housing that defines a small harbor along the Back Bay to house the shrimp boat fleet.
- Collect retail stores and restaurants in a promenade at the edge of the harbor.
- Generate a community park adjacent to the harbor.
- Provide a market hall and square to house the activities of the fishing industry.

BEACH BOULEVARD REDEVELOPMENT

- Develop a town center project at Treasure Bay, that includes 250,000 square feet of commercial, 2,000 units of housing, various civic buildings and a marina
- Generate two new traditional neighborhoods in the next five years to house 2,000 families In the context of new TND development, construct a new central park for Biloxi struction effort over a five year period.
- Set up a design center staffed by architects partial to traditional urbanism to advise citizens and neighborhoods of the lot-by-lot/house-by-house reconstruction process.



An illustrative plan for the reconstruction of downtown Biloxi.



A plan for the reconstruction of the point.



Biloxi's Back Bay harbor.



View of the proposed Back Bay harbor and promenade.





### BEACH BOULEVARD REDEVELOPMENT

Entering Biloxi along the water on Beach Boulevard from Gulfport should be one of the most beautiful city entrances in the world. The water's edge, with its lovely strand of sand on one side and magnificent stands of oaks on the other side, is one ingredient for a rich and memorable experience. Yet the manmade elements of this cityscape do not live up to this spectacular natural setting.

An historic opportunity exists to alter Beach Boulevard in its entirety. First, Highway 90 must become a more manageable thoroughfare to cross for pedestrians coming from local adjacent neighborhoods on their way to the beach. Most importantly, Highway 90 must be thought of as a grand boulevard instead of a highway. In fact it should have a name rather than a number. A continuous boardwalk along the water's edge can become a grand promenade. Continuous stands of oaks and other native plants such as palms must be replanted to give both scale and shade to the people traveling its length.

Older and new maritime places, such as boat marinas, the old lighthouse, and parks, can be located and designed to terminate the streets at the water.

A street car is proposed along the length of Beach

Boulevard that can provide easy access to tourists and citizens alike to and from the airport, jobs, shopping, the historic downtown, and to the casino district. Stops at important nodes and intersections can provide the backbone of a new structure of neighborhood and regional centers within easy walking distance for local residents, tourists, and/or convention goers.

The pattern and pace of development along Beach Boulevard, both in East and West Biloxi, are essential to the economic future of the city.

On the west side, the boulevard traverses three important districts: Edgewater, Popp's Ferry and Broadwater. All three need to be redeveloped over time as mixed-use places that offer urban living and retail alternatives to both locals and tourists. This plan illustrates the redevelopment of one of these, — the Broadwater District.

Further east, and on both sides of Holy Land, retail and commercial uses should be concentrated along four neighborhood centers: Veterans' and Rodenberg to the west and Keesler/White and Lighthouse to the east. All property in between these, including the bulk of Holy Land, should be redeveloped as neighborhoods at various house compatible forms and densities, excluding podium buildings and towers.

Towers should be concentrated around casinos and be clustered around the three west side districts. Development proposals that include towers isolated from other uses, without integrating them into a neighborhood or district structure, should be rejected.

On the east side, commercial development should be concentrated in two places: downtown, with the adjacent two casinos there; and at the point, with its existing casinos and the proposed ones clustered around Casino Square.

For maximum visual effect, visibility of the casinos and drama of placemaking, we propose that Beach Boulevard terminate at the point in a park and aquarium, which become the most prominent access point to the linear waterfront park around the entire peninsula of East Biloxi.

New development must be designed and built to support the experience of Beach Boulevard as a powerful part of the identity for the whole of Biloxi and as a series of commercial and civic amenities. Every effort should be made to rebuild historic structures and new buildings that compliment and extend the distinct architectural character of southern Mississippi.



An aerial view of East Beach Boulevard Drive (Highway 90).



Proposed East Beach Boulevard Drive (Highway 90).





Illustrative plan for Broadwater, a proposed new traditional neighborhood for West Biloxi.

**WEST BILOXI:  
A NEW TND AND CENTRAL PARK**

The destruction wrought by Katrina presents the opportunity of introducing into Biloxi a traditional neighborhood development pattern. TND projects have been happening routinely over the last ten years across the country, but principally in the southern United States. It would seem natural to proceed with the development of neighborhoods in Biloxi, a city so defined by beautiful historic neighborhoods.

Over the last decades, developers on the Mississippi Coast have been selling real estate the old fashioned way: stressing the value of land in the case of detached, single-family houses or by selling views, in the case of towers and slabs. Now the time has come to build neighborhoods in order to promote another real estate strategy: Selling both privacy and community. The best and most beautifully designed individual dwellings should be sold in the context of a beautifully assembled and detailed neighborhood.

The urgency to rehouse hundreds of families in a short period of time suggests that the existing golf course in the Broadwater area be redeveloped into two traditional neighborhood developments (TNDs) and a Central Park.

The 80-acre park would become the most important recreational resource in the entire city. Located



**A vision for neighborhood homes in Broadwater.**

within short vehicular distance from most neighborhoods on the Peninsula, Central Park would be a favored family destination for active play, for passive enjoyment, for special entertainment and for attending civic and other events.

The new neighborhoods would be designed according to the best traditional urbanist principles to accomodate as many as 2,000 families: an interconnected grid of pedestrian-friendly streets; a variety of housing types and densities; a well-formed network of public space; access to tran-



**View of Central Park.**

sit, commercial and civic activities; and direct view and access to Central Park.

The design of individual buildings should be in traditional Mississippi types and styles, in the interest of reclaiming the quality and quantity of traditional houses erased and damaged by the hurricane.

These two neighborhoods could be planned, designed and built within a five-year period and become one of those discreet and highly visible reconstruction projects that generate pride and confidence in the future of Biloxi.



**Houses in a new TND.**



**A pavilion in a new TND.**



**A new neighborhood streetscape.**



### CONNECTIVITY AND WALKABILITY

Since the hurricane, the ability for residents to circulate freely within and around Biloxi has been extremely compromised. Bridges have come down, roads have been destroyed, and north-south connections from the peninsula to I-10 have been congested.

Other access issues have been raised. Easy non-vehicular access to and from the airport and from town to town along the coast is needed. There is no easy way to drive around the entire eastern peninsula. Beach Boulevard needs to be preserved as a National Scenic Resource. There is strong consensus that the CSX heavy rail line would be better located further north. And the extension of the I-110 into downtown has created a rupture of the street fabric in the heart of Biloxi. This raised highway section prevents the downtown from filling out blocks on the east side along this roadway, and it compromises the connectivity of streets other than Division Street and Howard Avenue, east-west.

The proposed transportation strategy for Biloxi could be described as “A City of Boulevards.” This is a strategy that both resolves traffic issues and strengthens the value of real estate along the major thoroughfares of the city. Boulevards enable slower traffic flow without compromising capacity. They also enable pedestrian circulation that renders a high quality of place in neighborhoods and districts alike. Connected to the rest of the street network, these boulevards would become the image of Biloxi to those arriving by car for the first time and the principal places of passage for locals driving and walking. They would become the life line of the city. Four such major projects are proposed:

View of proposed Ocean Boulevard replacement of I-110 spur.

1. With the move of the CSX heavy rail line northwards, there exists a unique opportunity to establish a new boulevard within this right of way. With or without dedicated transit at its median, this boulevard can double the east-west traffic capacity of the road network of Biloxi and reconnect all the neighborhoods that it traverses with the downtown. This should become the principal measure for decongesting the peninsula, not the occasional widening of streets here or there.
2. Beach Boulevard should remain a four-lane scenic road along its entire length. With or without dedicated transit, this extraordinary thoroughfare, the most prominent and beautiful in Biloxi, would connect all regional and local-serving centers on the coast, both in east and west Biloxi. Highway 90 should be called Beach Boulevard. exclusively. We are proposing that the collapsed bridge to

Ocean Springs be rebuilt along the CSX Railroad right-of-way. There are several reasons for this: First, in order to traffic-calm Beach Boulevard, it should terminate at the end of the peninsula and bring people to a new aquarium and park located there. In addition, as it turns northward, its location should be used to form more appropriately sized parcels along the water's edge to accommodate the size and activity load of new casinos.

3. Back Bay Boulevard is a new thoroughfare that connects Beach Boulevard along the point to the recently completed, northern peripheral road. Back Bay Boulevard should provide access to all the casinos in East Biloxi and be located as an edge road, a boundary to the neighborhoods it skirts.

4. The raised freeway section of the I-110 connector, to be called Ocean Drive, should be demolished past the first intersection into the peninsula and be rebuilt as a grand boulevard. This will allow visitors to access the city, its downtown and its casinos directly. There will be no doubt about entering Biloxi. The current entrance through a loop exit lane that hovers over the ocean is confusing and disorienting. The new boulevard will access the downtown directly, thus helping in its revitalization. It will reconnect east and west Biloxi and will increase the property values along its path dramatically.

The four proposed boulevards could only be considered at this time because of the emergency situation of the city and the degree of destruction around their rights of way. This new road network needs to be totally reconnected to the rest of the city. This work needs to be accomplished within the next 12 months. Cities thrive on great infrastructure. This is a once-in-a-century chance for Biloxi to be designed around a memorable, beautiful and useful set of new roadways that resolve every problem of circulation, disconnection, confusion and congestion that exists in the city today, and spread real estate value along its edges.



East Biloxi diagram of proposed thoroughfares.





# D'IBERVILLE

Protected somewhat by its inland location bordering the north edge of Back Bay, D'Iberville residential and commercial areas still sustained significant damage, most notably in those areas along the edge of the bay.

In the hardest-hit areas, a new waterfront could be formed of 11 different neighborhoods, each with a different motif and purpose. Closest to the coast, a neighborhood reminiscent of New Orleans could offer arcade-lined streets, cafes, restaurants and retail, with two additional stories on each building for housing. Those buildings would be dry-proof to a certain height.

Along the bay is a layer of wetlands and mangroves that act as flood control while providing an open, natural area adjacent to hotels and casinos. Connectivity could be enhanced by extending I-15, linking the community to ecological areas and turning D'Iberville into a commercial hub. Additionally, an extension to Popps Ferry Road could complete this thoroughfare, transforming it into a viable alternate route to Highway 90.

**Pictured above, a proposed view of the French Quarter in D'Iberville.**



**Charrette team leader, Jamie Correa, meets with D'Iberville Mayor Rusty Quave.**



# Strategic Actions

## POLICY:

- Amend Comprehensive Zoning Ordinance of 1995 (CZO'95) to allow arcades and boardwalk on proposed mixed-use French Quarter area between Rodriguez Street and Bay Shore Drive.
- Amend CZO'95 to allow live/work units along Grand Avenue between Rodriguez Street and D'Iberville Boulevard.
- Amend CZO'95 to reconfigure casinos into "campus-like" incremental buildings. Establish a maximum frontage for the various components of this new building type, particularly its casino, hotel and cabana portions.
- Amend subdivision regulations to pre-approve buildings and projects that comply by at least 80 percent with proposed master plan.
- Regulate the use and location of the existing wetland network as a natural and environmental preservation area or as part of an amenity/educational package for the city of D'Iberville.
- Amend environmental regulations to allow the creation of water retention, detention and filtering areas in public spaces.
- Amend environmental regulations to minimize site disturbances through site design.
- Amend CZO'95 to prevent land consolidation and development speculation in single-family and rural areas.
- Implement a public transit subsidy and study inter-local agreements with local merchants acting as public transportation subsidiaries.
- Create tougher building codes that promote better construction methods, green architecture, energy efficiency and renewable materials.

## MANAGEMENT:

- Work on inter-local agreement to relocate the Harrison County Waste Management Plant located on south D'Iberville to a new site at the proposed city of D'Iberville northern annexation area.
- Get a development commitment for a seafood park next to the new Waste Management Plant.
- Acquire property at NW corner of Central Avenue and Race Track Road. This piece of property shall be used for an open-air market at the center of the proposed French Quarter entertainment district.
- Acquire open site south of City Hall. This property shall be dedicated to the creation of a traditional civic square with a bandstand.
- Acquire right-of-way and properties between Rae Street and D'Iberville Boulevard. This site will allow a non-disruptive connection between Pops Ferry Road and Lemoyne Boulevard and,



## REGIONAL PLAN

The regional master plan establishes the organization of the D'Iberville region. It includes a hierarchy of its urbanized area, the location of its supporting districts, the potential for the annexation of neighboring territories, the location of open space corridors and areas of environmental protection, and particular strategies for the development of waterfront areas and regional landscapes. Its main goal is the mapping of a predictable and a defensible future where the traffic congestion, fragmentation, and dissatisfaction of conventional suburban sprawl are NOT necessary the design criteria.

- as a consequence, the creation of a new north-south local connector road between Gulfport and Ocean Springs.
  - Acquire Don Ford, Inc. site (car dealership site) and develop a private/public partnership to develop a multi-family housing project with the highest new urbanism design standards.
  - Reconstruct the D'Iberville Middle School and School Attendance Center on the open site on Big Ridge Road. Use the existing site for a small elementary school and new mixed-use development.
- ## DESIGN:
- Design city entrances on Rodriguez Street at the exit of Interstate 110.
  - Connect 5th Avenue and Santa Cruz Avenue to provide a direct access to the proposed Casino Row on Bay Shore Drive.
  - Create an esplanade along Bay Shore Drive.
  - Extend Bay Shore Drive to Fournier Avenue.
  - Establish an environmental network from City Hall to the location of the re-constructed Environmental and Educational Center at Antoine Fountain Cemetery.

- Build new open-air market on Race Track Road and Central Avenue.
- Plant trees along the main connector roads.
- Build middle school campus on Big Ridge Road and a small magnet elementary school at the location of the old D'Iberville School Attendance Center.
- Reconfigure the intersections of D'Iberville Boulevard, Central Avenue North and Lemoyne Boulevard.
- Enhance the transportation efficiency with the creation of a public transportation network between neighborhood centers.
- Implement a small jitney/tram between French Quarter District and Wal-Mart along Central Avenue.
- Establish a water-taxi program between the casinos on Bay Shore Drive and the city of Biloxi.
- Open mid-block connections to enhance walkability and to diminish the size of blocks inherited from the French Land Grant programs of c.1655.
- Clean up the existing Waste Management Plant and re-locate to northern annexation area.





A NEW LOOP ROAD

After Hurricane Katrina destroyed the bridge between the city of Biloxi and the city of Ocean Springs, a new connecting route became essential for the temporary traffic health of the Gulf region. In an attempt to improve the local traffic conditions within these areas, the city of D'Iberville public officials identified a potential connection between the city of Gulfport and the city of Ocean Springs. To achieve this goal, the master plan proposes a simple on-grade reconnection between Popps Ferry Road and Lemoyne Boulevard. This intervention would create this much needed traffic loop.



GREEN PATH

The regional plan provides a continuous network of undisturbed natural landscaped areas which traverses in the downtown area from the City Hall Civic Center Plaza to the Environmental Education Center and from the Inner Bay to the newly created central space at the intersection of Central Avenue and D'Iberville Boulevard. The intentions are to protect these habitats from development in perpetuity and, to offer opportunities for the education of new generations on the importance of non-human intrusion, birds, exotic species, endangered species, local ecologies, etc.



TENT CITY

FEMA has identified the current "Tent City" site on North Central Avenue as a potential case-study location for their new housing proposal. Their proposal pays for permanent infrastructure expenses if the site is designed to become a permanent location for a diversity of housing organized around a public square. A gradual housing transformation would occur; from trailers to temporary housing; from temporary housing to permanent housing lots of various sites.

For more information, please contact Jorge Quintero at the FEMA Housing Area Command in Baton Rouge, Louisiana or consult the FEMA Joint Housing Solution Center preliminary report titled: "Transient Communities Principles".



The dotted area is a site FEMA has identified for "Tent City" on North Central Avenue.





Casino Row view from the Back Bay.

### CASINO ROW

The residents of D'Iberville do not want suburban-style shopping centers, big box retail stores or a large number of chain stores and franchises in their historic buildings left.

By pure observation, and in accordance with trends established before the hurricane devastation, the south side of D'Iberville has four niches and retail development strategies that can be used for its successful reconstitution: waterfront uses, entertainment, arts and culture and live/work areas.

The mixed-use district is to be located along Bay Shore Drive between proposed extension of Santa Cruz and Fournier Avenues. The buildings are flanked by a continuous esplanade between Santa Cruz and Central Avenue and protected from the Inner Bay by a network of wetlands and parks for the enjoyment of tourists and residents alike.



### FRENCH QUARTER

For the short term, D'Iberville should focus its street landscaping expenditures on installing durable street lamps, benches, tree wells, manhole covers, garbage cans and planters (hanging or ground-based). Durable items made from high-quality and structurally sound materials, even when it means to postpone some resurfacing of streets and planting strips with pavers.

Suburban landscape treatments such as hedges, boulders, berms, ground cover plantings, post-and-beam fences and railroad ties should be prohibited, as should suburban street lighting such as the cobra head lighting commonly found on arterial roads and shopping center parking lots. All standards should conform to the very best elements of landscaping, lighting, signage and street furnishings found on great main streets, urban parks and plazas or, at the very least, the city of D'Iberville should stick to the minimum standards found in historic photographs of its old commercial area.



Proposed water taxi route for waterfront.

### WATER TAXI

A proposal for a water taxi was put forward between the design team working in the city of Biloxi and the one working in the city of D'Iberville. Amongst its immediate advantages, a water taxi would be beneficial for the hotel and casino tourist population and the elderly; it would create a network of connections on the two sides of the Bay; it would augment the traffic potential of particular projects within the cities of D'Iberville and Biloxi; it would promote the preservation and conservation of the existing ecology; it would allow citizens and visitors to admire the historic landscape; and, it would add an extra sightseeing mechanism to enhance various tourism programs within the city of D'Iberville.

As proposed, the water taxi would have strategic stations at the various hotel and casinos along the water front.





# OCEAN SPRINGS

Ocean Springs' downtown weathered Katrina with relatively little damage; most of the businesses there have reopened or will reopen soon. Because of this, Ocean Springs should be one of the first to bounce back after the storm — and new residents will come knocking. With this probable population growth, Ocean Springs needs to look for development opportunities in key areas, e.g., Highway 90 as it enters the town; and the harbor, which holds options for mixed-use development. The city isn't lacking for waterfront development ideas. One ap-

proach would be fortified buildings to deflect storm surges, with elevated promenades facing boat slips. In this instance, parking and limited retail are located on the ground floor. Another option allows for more retail on the ground floor and assumes that level can be waterproofed, an approach that has met with success in Fort Myers Beach, Fla.

As for Highway 90, opportunities exist to change its development pattern. Before Katrina, strip conditions were the rule. Redevelopment could take

the form of transit-oriented development, with infill properties along the highway, incorporating a new anchor store on the ground floor of taller buildings and connecting to a rail transit station with a pedestrian-friendly street.

**Above: The harbor's shrimp market and a range of boat facilities and restaurants can become an integral part of establishing a neighborhood center.**



Mayor Connie Moran participates in the Mississippi Renewal Forum.



Downtown Ocean Springs was spared widespread damage; however, many homes were lost along the shore.



# Strategic Actions

**ADOPT A “CITY OF NEIGHBORHOODS”  
FRAMEWORK:**

1. Use the historic Old Ocean Springs development patterns for new growth areas in eastern and northern corridors.
2. Build and maintain walkable, bikeable, interconnected streets citywide.
3. Reserve special sites for civic buildings and community landmarks in each neighborhood.
4. Reinforce a community-wide pattern of human-scaled neighborhood schools, located

within short (preferably walkable) travel distances of each neighborhood.

5. Continue to protect and enhance historic Old Ocean Springs and its environs.

**ADOPT SPECIFIC DESIGN PLANS FOR  
NEW DEVELOPMENT IN SPECIAL PLACES,  
INCLUDING:**

1. Ocean Springs Harbor
2. West End Landing and Front Beach
3. Railroad Historic District
4. Singing River Hospital
5. Transit-Oriented Developments:
  - East End main street area;
  - along Bienville Boulevard;
6. Berlin property (“100 Acre Wood”)

**PROMOTE INCREMENTAL INFILL IN EXIST-  
ING NEIGHBORHOODS, PARTICULARLY  
THE CLOSE-IN NEIGHBORHOODS NEAR  
OLD OCEAN SPRINGS:**

1. Identify vacant and underutilized land within town growth areas; promote these development opportunities to developers who specialize in traditional neighborhood development.
2. Pre-approve building designs that support the community character — make it easy to develop the right thing.
3. Support mixed-use development with public parking, shared parking and all available incentives.

**EVOLVE THE HIGHWAY 90 “STRIP” INTO A  
MATURE URBAN BOULEVARD:**

1. Require street-oriented buildings with no blank walls facing the boulevard.
2. Focus mixed-use development around future transit stops. Form transit-ready locations by coupling employment centers (such as the hospital) with new housing, supportive retail and entertainment.
3. Establish a pattern of parallel local roads and multiple points of interconnection to conserve capacity



Ocean Springs is a city of neighborhoods represented by the top illustration. The red circles below indicate a 1/4-mile, 5-minute walking distance and is the principal building block for neighborhood development.



- on Highway 90.
4. Convert the highway-and-frontage road pattern to a classic urban, multi-way boulevard, with tree lines, slow lanes and parking.

Alternatively, reconfigure Highway 90 with fewer lanes, more trees and restored on-street parking.

**ADOPT A GREEN CITY FRAMEWORK:**

1. Preserve, extend and connect green edges, bay-ou and marsh fingers, and parklands.
2. Establish small, carefully located, highly maintained squares as neighborhood centers.

**OVERHAUL THE LAND DEVELOPMENT  
REGULATIONS:**

1. Employ a “form-based code” approach.
2. Alter policies that do not support design goals in the community vision (e.g. lot sizes, building heights, density, prohibitions on mixed uses, setbacks, parking requirements, etc.).
3. Establish standard practices for development in key growth areas and pre-approve projects following the standards.

**ENSURE AFFORDABLE HOUSING AND  
AFFORDABLE COMMERCE:**

1. Small businesses following standards and guidelines established by the city should be pre-approved.
2. Encourage compact development (higher density), live/work combinations, and residential above retail.
3. Permit accessory dwelling units and accessory offices citywide.
4. Introduce classic rowhouses to the housing mix

enabling single-family attached homes to complement the predominant detached homes.

**CREATE A “PARK-ONCE ENVIRONMENT”:**  
Cluster complementary uses on pedestrian-friendly streets to support walkable commerce and reduce demand for motoring.

**CULTIVATE CONTINUOUS, DESIGN-  
FOCUSED PUBLIC PARTICIPATION:**  
1. Develop detailed plans for special places using the “charrette” method.

2. Require planning consultants to conduct events according to standards set forth by the National Charrette Institute.

**PROVIDE LEADERSHIP TRAINING:**  
1. Send elected officials, planning commissioners, local developers, designers and city staff to educational events on the subjects of:

- Public Participation
- New Urbanism
- Form-Based Codes
- Green Building
- Livable Streets

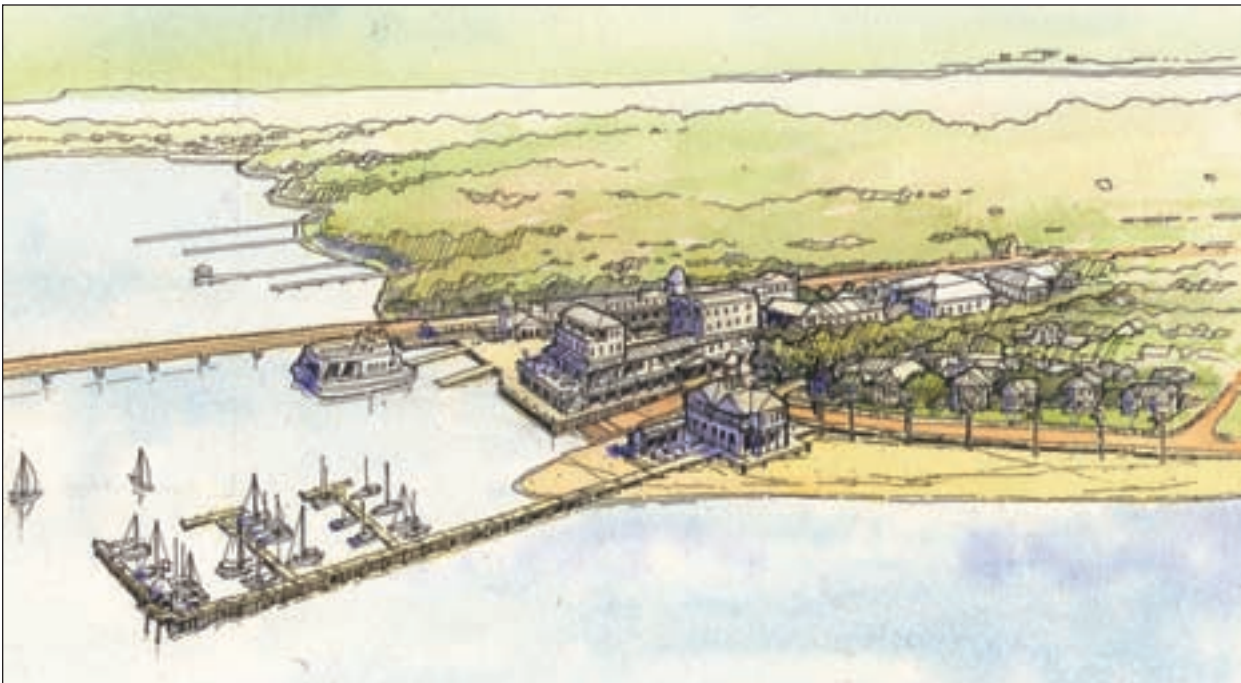
**PROVIDE STAFFING TO IMPLEMENT THE  
PLAN:**  
1. Create a town architect or supervising designer position within the city, to work with applicants on refining designs to comply with the form-based code and the plan vision.

2. Create a city arborist position responsible for the city’s historic and new tree canopy, and empower this person to supervise the ongoing design and maintenance of the street tree network.



FRONT BEACH AND THE FERRY

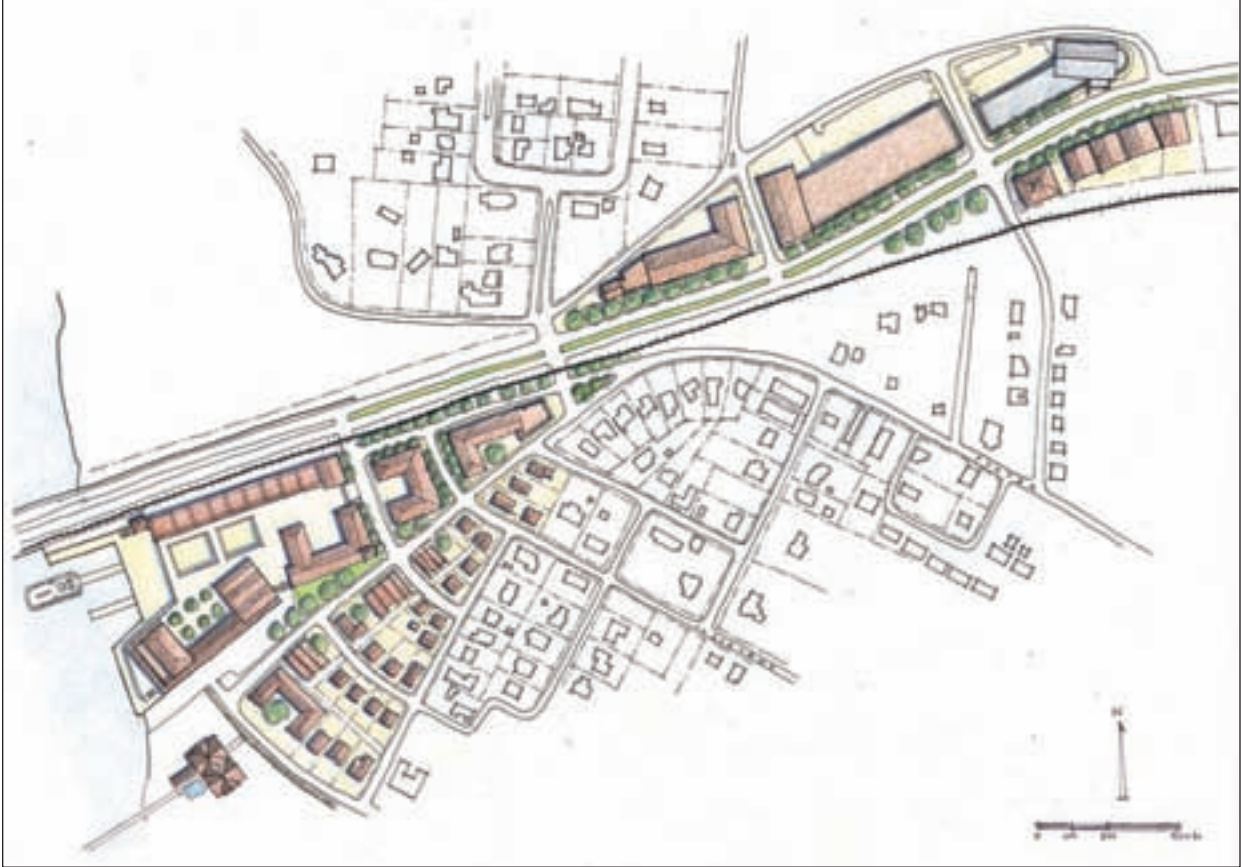
The West End Landing, which combines the proposed ferry dock, future passenger rail or trolley stop, the renewed Ocean Springs Yacht club, and the new Highway 90 bridge. This area should be a landmark collection of mixed use buildings and spaces that form the visible gateway to the city. The concept illustrated assumes that a permanent ferry (or water taxi) will be operated even after the new bridge opens, perhaps connecting to a different point in Biloxi than the bridge. If there is to be no permanent ferry, this dock could be repositioned so as to provide additional access to the public waterfront.



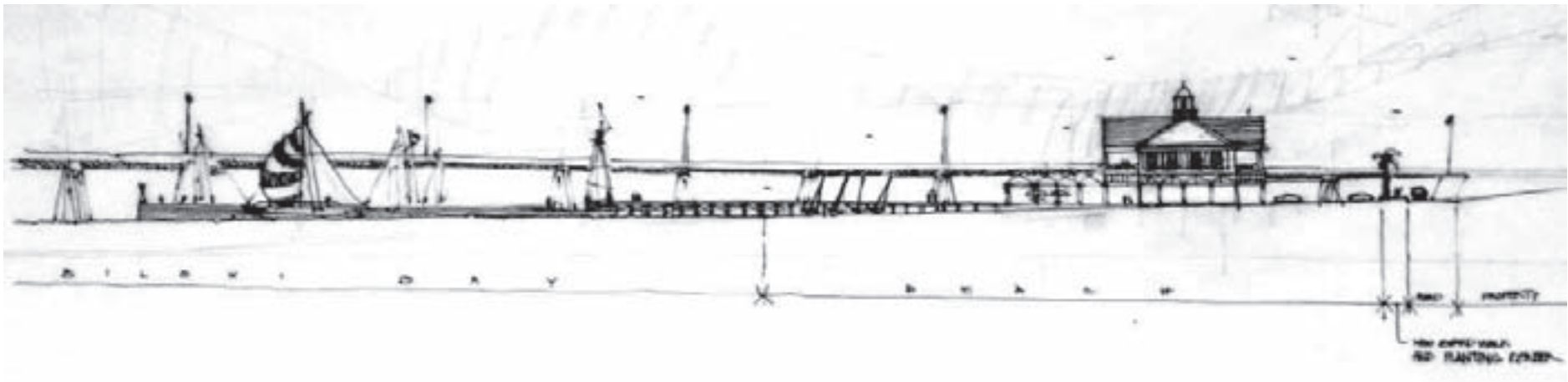
An additional alternative for the West End Landing and ferry terminal.



An early section drawing of the ferry district buildings showing how the parking structure helps to elevate the public buildings putting them out of flood levels.



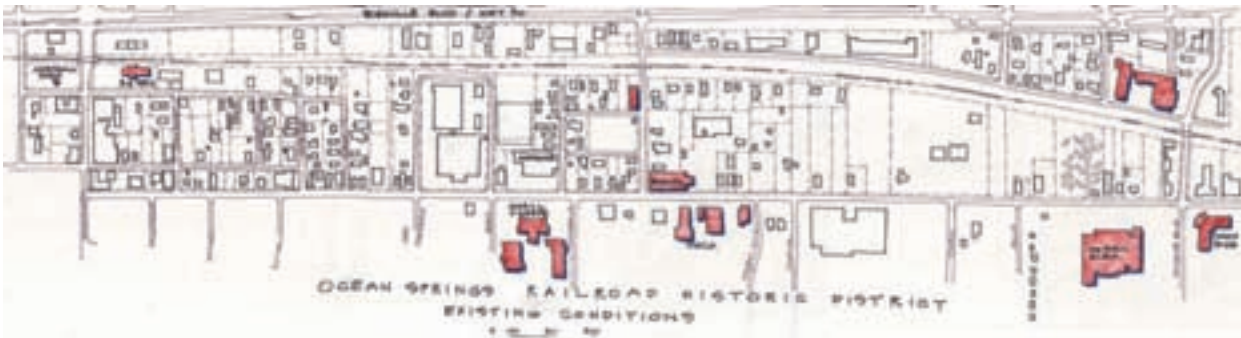
This scenario illustrates the realignment of Highway 90 to a new bridge that is coupled with the railroad, elimination the overpass “braid” and resulting in consolidated redevelopment site adjacent to the Ocean Springs Yacht Club and boat basin.



OCEAN SPRINGS YACHT CLUB/NEAR-TERM POSSIBILITES

The Ocean Springs Yacht Club, a landmark building, features a redesigned facility that is both elevated and expanded so as to provide a suitable entrance feature into town. The yacht club cupola is a major visual element in the landscape when crossing from Biloxi and should be represented well by any new building.





THE RAILROAD DISTRICT/NEAR-TERM POSSIBILITIES

The illustration at the top of the page represents the current situation in the railroad district. The illustration below explores how with reconfiguration of certain several streets and large lots, the district could be refit with a neighborhood fabric that supported continued growth and development in the town.



BIENVILLE BOULEVARD/ TRANSIT-ORIENTED DEVELOPMENT

Large-format anchor stores can still be accommodated, with the structure of blocks and streets. New growth takes the form of traditional neighborhood developments, with conscious protections of wetlands and other special environments, plus transit-oriented development. This sketch was based directly on a block study of Old Ocean Springs.



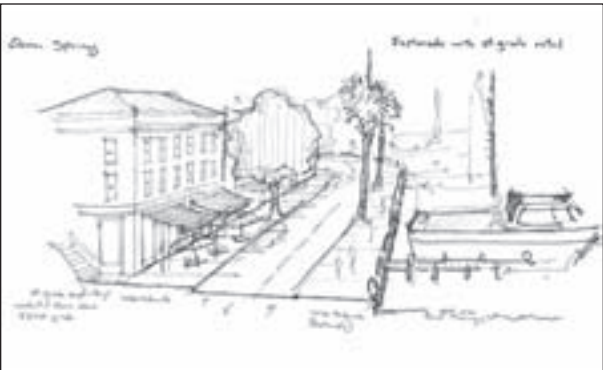
The Harbor is currently home to a local fishing and shrimping fleet that would benefit from improvements along the waterfront. These improvements include market stands and boating facilities that would strengthen connections to the town.



Current conditions at the Wal-Mart site.



An early intervention.



Retail raised above a level of parking (left) and water-proofed retail buildings at grade (right).



The Wal-Mart site as a transit-oriented development.





# GAUTIER

In many ways, Gautier is different from neighboring Gulf Coast towns. It's not a beach town; rather, bayous make up the bulk of its "shoreline," providing opportunities for a different kind of tourism magnet. The city was incorporated a mere 20 years ago, and with the exception of several along one edge, most of Gautier's buildings aren't that much older. Its age probably influenced its dominant development pattern, which is conventional suburbia.

The question for Gautier isn't whether to rebuild — only about 20 percent of the houses had damage or destruction — the challenge is to manage the growth pressures that were present before Katrina made landfall: Gautier was the fastest growing city in the Gulf Coast region. A bedroom community to Pascagoula, Gautier has no discernible center and aggressive suburban development in the form of a 4,300-unit PUD, which is presently under construction.

In the wake of a recent annexation to the west that more than doubled the geographic size of the community, Gautier's primary opportunity lies in leveraging the economic and scenic value of its bayous and thousands of acres of park land without biting the hand of potential ecotourism. Options for accomplishing this include creating a viable center, shoreline development that is consistent with the community's ecotourism goals, preservation of park lands, and connections between the downtown, a potential light rail stop, and Highway 90.



Team leader Neal Payton.



The Gautier charrette team at a pin-up session with local residents.



# Strategic Actions

## MASTER PLAN STRATEGICACTIONS

Implement new transect-based zoning ordinance to allow implementation of these recommendations.

Rebuild and develop shoreline in a manner consistent with the community's ecotourism goals.

Create a viable town center and establish new neighborhood centers.

Provide greater connectivity between the new centers, including with proposed light rail and US-90.

Preserve, enhance and expand parklands to provide all citizens access to water.

Provide industrial and commercial development opportunities at I-10 and Route 57.

Build a greenway to engage the Sand Hill Crane preserve and promote eco-tourism.

## FISHING VILLAGE

Fish Camp Village and Marina Center: The fish camps and marinas offer a unique opportunity to strengthen Gautier identity and to actuate its eco-tourism industry.

## DE LA POINTE MAIN STREET

Code De La Pointe Road to allow for development as a main street, create center from connecting fishing villages (marinas), and connect to city park on west end of center.

## GAUTIER CENTER

Create a town center with retrofitting the mall, which will create frontage for the Mississippi Gulf Coast Community College; create a town common for the Mullet Festival; and connect to the transit stop just south of the town center.

Developing this single parcel of land that stretches from Old Spanish Trail to the Mississippi Sound waterfront accomplishes two major goals: circulation connections between the east and west neighborhoods of south Gautier and gives the citizens much needed public waterfront access to the sound.

## GRAVELINE CENTER AND MISSISSIPPI SOUND CONNECTION

Create a street connection from Gautier Center south to the waterfront Mississippi Sound giving the community public access of the waterfront.

## SAND HILL CRANE VILLAGES

Create a new transit-oriented/greenfield development across from the Shell's Landing community and adjacent to a new transit stop.

## SHELL'S LANDING

With Gautier's rapid population grown, the com-

munity needs to visualize the type and location of future neighborhoods. Since Shell's Landing plans to develop a new retail center, the Sand Hill Crane neighborhoods would cater to the center and strengthen the redeveloped mall. The neighborhoods would weave themselves into their natural surroundings to make them both become a feature and respected amenity.

## NORTH GAUTIER AND FARRIGUT NEIGHBORHOOD CENTER

Create new connections, both vehicular and pedestrian, to Gautier's northern neighborhoods and create a neighborhood center with the civic spaces and retail services.

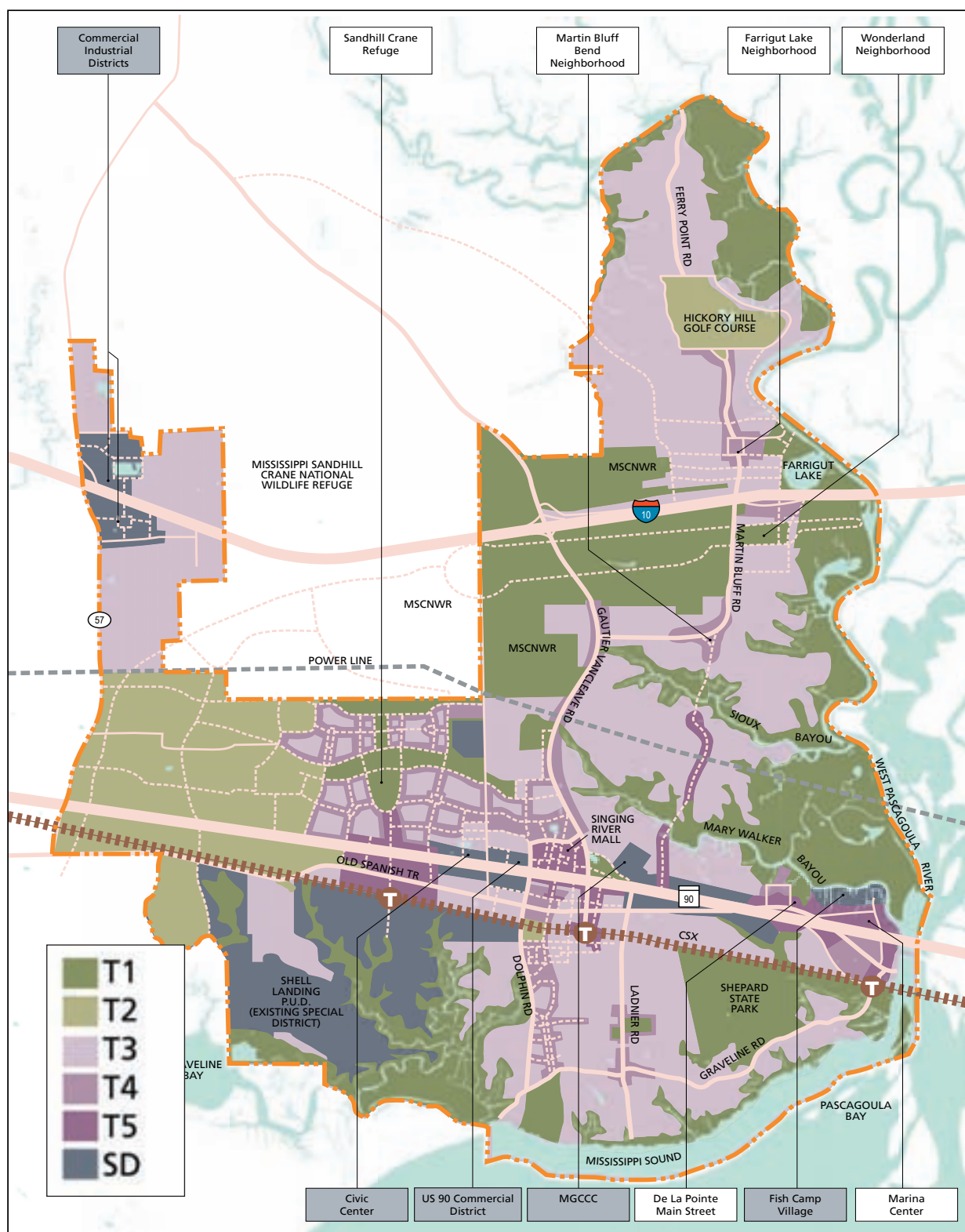
## VILLAGE CENTER

This proposal includes redeveloping the mall into main street, while keeping the retail anchors; integrating the Gulf Coast Community College to front

on the "Gautier Town Commons" and developing around the future transit stop with neighborhoods that will support the college and redeveloped mall. The Gautier Town Commons is proposed to become the ceremonial space for the town, which will host its "Mullet Festival."

## GAUTIER - THE DESTINATION FOR ECO-TOURISM ON THE GULF COAST

Gautier has a series of beautiful, secluded neighborhoods encircled by the scenic, natural Pascagoula River and Mississippi Sound. The town has the beginnings of many regional, town and neighborhood centers but has to strategize to strengthen these identifiable centers and create an easily recognizable identity for the town as a whole. These steps include connecting the individual neighborhoods, recognizing places for further growth, and providing public spaces so the entire community can enjoy access and respect the natural environment.



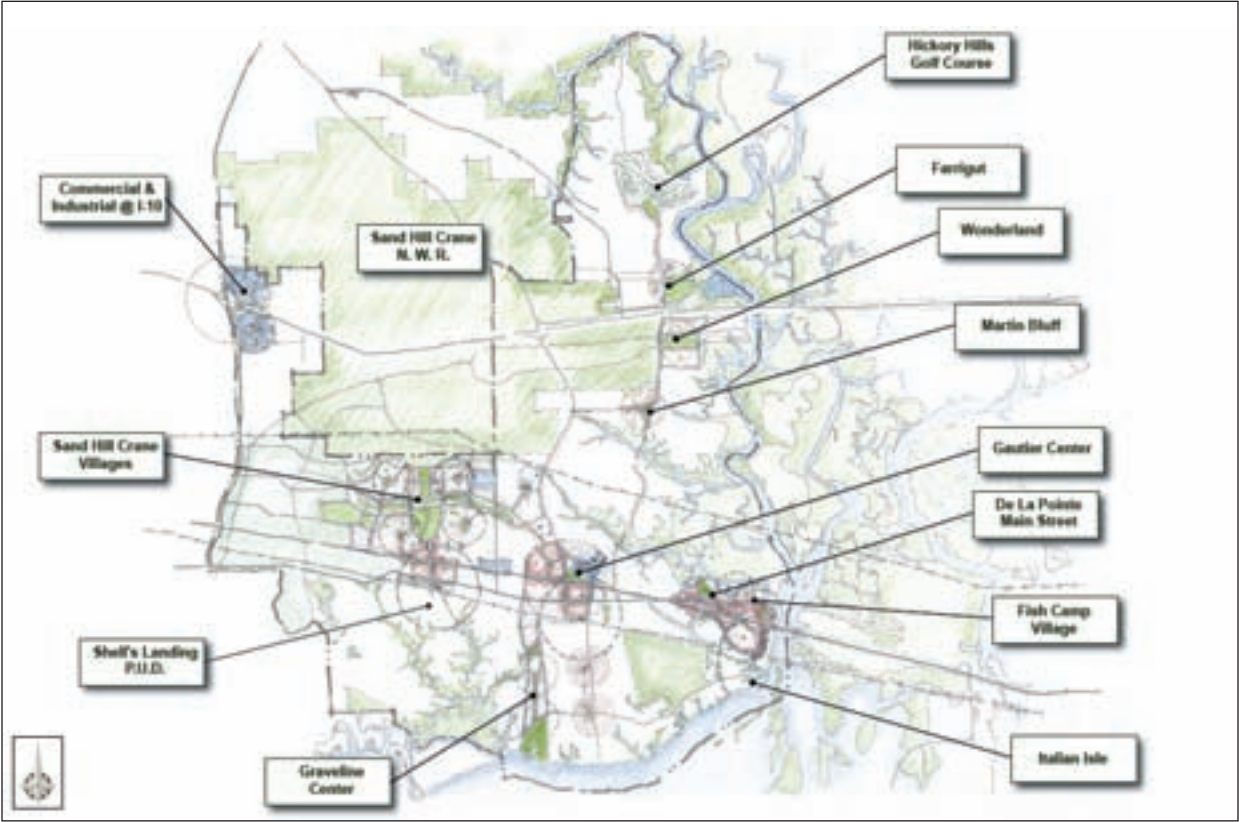
Gautier should select to use the SmartCode, which is a transect-based code, as an overlay to promote properly focused development strengthening the city's vision. (See page 71 for T-zone descriptions.)



CONNECTING NEIGHBORHOODS

The community of Gautier historically grew out of a group of families living across from Pascagoula. The first sense of community identification was established by the proclaimed “Gautier” U.S. Post Office in 1898, but it wasn’t until as recent as 1986 that the town grew sporadically in a series of separate neighborhoods and developments without an identifiable town center, with the exception of fishing-oriented marinas.

Upon the Mississippi Renewal Forum team’s visit to the town with the elected community representatives, they brought the team to “Huck’s” restaurant as the place which is commonly recognized as Gautier’s center. Yet, the town has many significant unrecognized or under-utilized centers that can spur on Gautier’s development. The town is home to the Mississippi Gulf Coast Community College, Singing River Mall, Shepard State Park and many waterfront neighborhoods. The team’s observations yields an analysis which identifies neighborhood centers, natural resources and areas of opportunity.



Gautier has a series of neighborhoods needing connections to strengthened centers.



View of Fish Camp Village

FISHING VILLAGE

Fish Camp Village and Marina Center: The fish

camp and marinas offer a unique opportunity to strengthen Gautier identity and to actuate its eco-tourism industry.

DE LA POINTE MAIN STREET

Code De La Pointe Road to allow for development as a main street, create center from connecting fishing villages (marinas) and onnect to city park on west end of center.

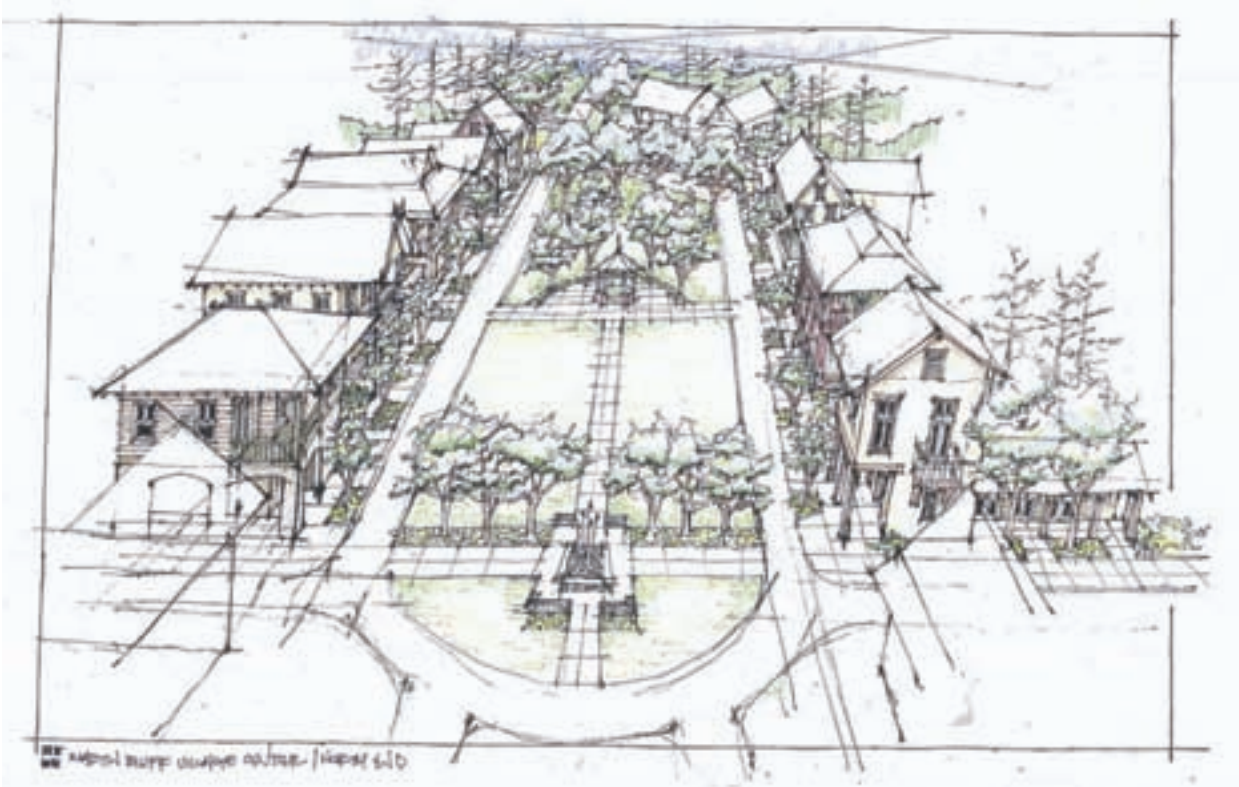


De La Pointe Main Street

GAUTIER CENTER

Create a town center with retrofitting the Mall, creating frontage for the Mississippi Gulf Coast Com-

munity College, create a town common for the Mullet Festival and connect to the transit stop just south of the town center.



View of a neighborhood green in Graveline Center

Developing this single parcel of land that stretches from Old Spanish Trail to the Mississippi Sound waterfront accomplishes two major objects: circulation connections between the east and west neighborhoods of south Gautier and giving the citizens much needed public waterfront access to the Sound.

GRAVELINE CENTER AND MISSISSIPPI SOUND CONNECTION

Create a street connection from Gautier Center south to the waterfront Mississippi Sound giving the community public access of the waterfront.

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Create a new transit-oriented/Greenfield development across from the Shell Landing Community and adjacent to a new transit stop.



## SHELL'S LANDING

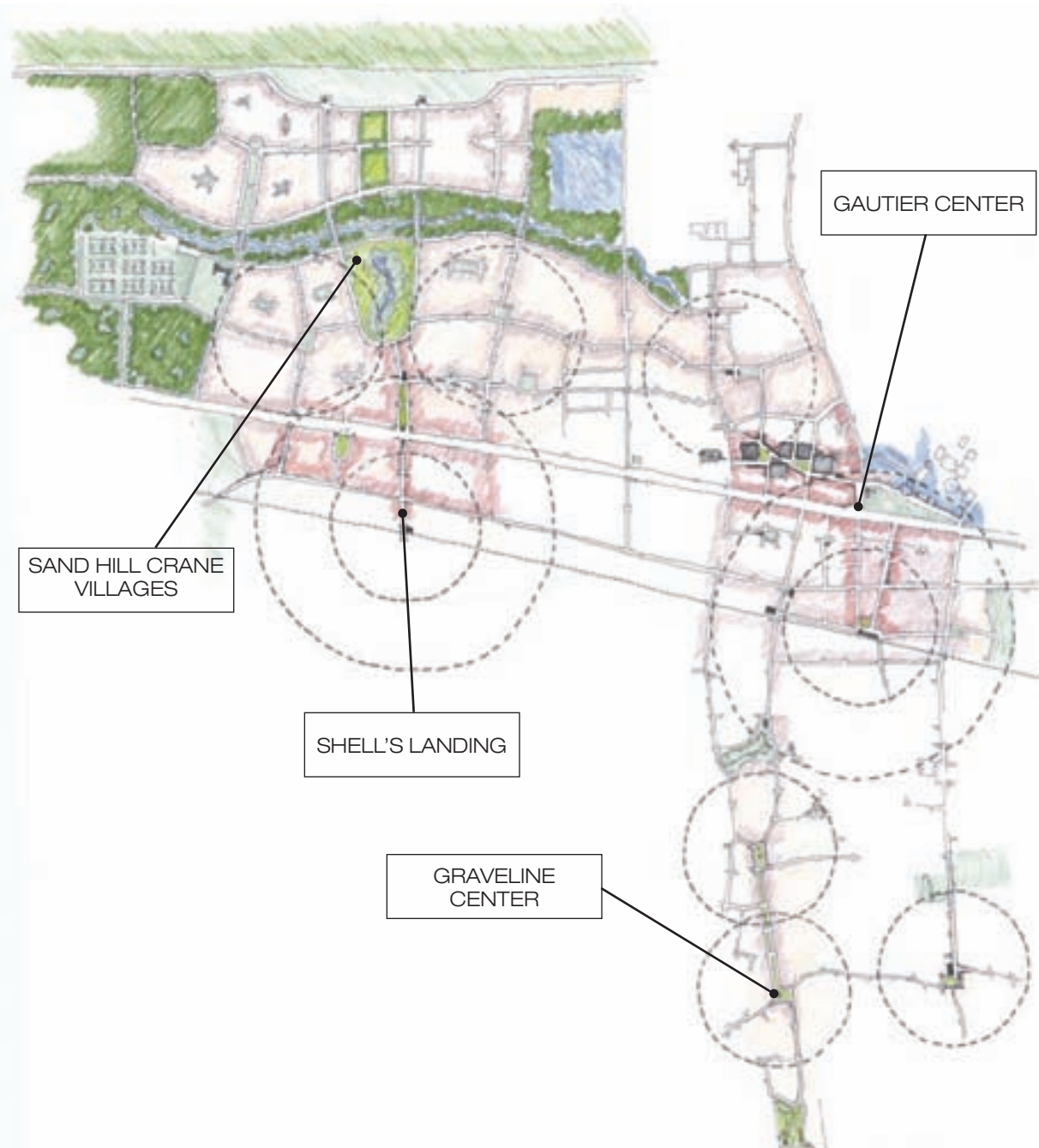
With Gautier's rapid population growth, the community needs to visualize what types and where future neighborhoods are expected to form. Since Shell's Landing plans to develop a new retail center, the Sand Hill Crane neighborhoods would cater to center and strengthen the redeveloped mall. The neighborhoods would weave themselves into their natural surroundings to make them both become a feature and respected amenity.

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Create new connections, both vehicular and pedestrian to Gautier's northern neighborhoods and create a neighborhood center with the civic spaces and retail services.

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A view of an entry at Shell's Landing.





# PASCAGOULA

**Pictured above, proposed Memorial Square, Market Street at Beach Boulevard.**

Hurricane Katrina destroyed or damaged the homes along Pascagoula's beachfront, but that is only one of many economic challenges facing the city. Its downtown is underserved by retail, single-use industrial concerns dominate the western waterfront, and it lacks a balanced level of green spaces.

Because of these issues and a Department of Defense proposal to close the Pascagoula Naval Station, the planning team for Pascagoula is looking well beyond the problem of rebuilding destroyed houses. The team is exploring how a potential light rail line could bring vitality to downtown and how more shops can be lured into the city, creat-

ing clusters of neighborhood businesses to serve residents. The historic rail station next to the CSX tracks, adjacent to downtown, is a possible light rail station. The team is also designing an enhanced, mixed-use, trolley-served boulevard from the downtown to the beach.

Along Pascagoula's western waterfront, low- to mid-rise residential buildings might be a viable addition, bolstered by a ferry service that could transport tourists and the city's 26,000 residents to the barrier islands recreation. As for the green space conundrum, an existing golf course could be moved to a new location, thereby creating a linear public park.

Market Square currently terminates rather abruptly at Beach Boulevard without any public amenities or celebration. As the city's primary boulevard leading to the waterfront, it is recommended that a new square be created where Market Square meets Beach Boulevard and that a new public pier be constructed out into Gulf.



Existing view.



Proposed park and pier.



# Strategic Actions

The report makes the following recommendations for the repair and revitalization of the city:

- Strengthen Pascagoula's economic recovery by creating new housing opportunities to attract a more diverse population.
- Build new housing on infill sites within the city, close to downtown and neighborhood centers in order to benefit local businesses and create compact, walkable communities.
- Revitalize existing districts and neighborhoods, such as Krebs Avenue, the former Belair Shopping Center, Live-Oaks and Carver Village, by building new housing on these sites. As many as 1,000 new dwellings could be accommodated in this manner.
- Rebuild low-lying, repetitive-loss areas such as the Chipley District with new homes at a higher elevation.
- Enhance the riverfront with new piers, marinas, improved access and mixed-use development.
- Revitalize downtown by building a new Magnolia Square and locating the proposed Performing Arts/Community Center there.
- Provide a local transit bus loop service serving the local neighborhoods, downtown and other major destinations.
- Improve the safety and appearance of the beachfront sea wall with a new pedestrian promenade and wetlands/beach. Build a new park and pier at the end of Market Street.
- Plan long-term cleanup and reuse of the Ingalls Shipyards as a mixed-use neighborhood with improved access and new waterfront parks.
- Consider building a new 18-hole golf course near the existing soccer fields and redevelop the existing 9-hole Country Club course for a new park and high-end housing.



## CITY FRAMEWORKS: PROPOSED PASCAGOULA PLAN

The circles represent the 1/4-mile radius from downtown and the 16 neighborhoods throughout the city. The distance represents an approximate 5-minute walking distance, suitable for a compact neighborhood center as well as a downtown district.

The plan shows the proposed transit network linking the different neighborhoods. This is centered on existing streets such as Market Street running north/south and Ingalls Avenue running east/west.

The pink shaded areas include downtown, the riverfront, and the possible reuse of the Ingalls Shipyard, the shoreline along Beach Boulevard, redevelopment of the Chipley site, the Belair site



Proposed transect zones (to replace land-use zoning).



Potential new replacement housing sites.

and the Krebs Avenue district as new residential neighborhoods within the city.

In addition a new 18 hole golf course is proposed on empty land close to Industrial Parkway. If this were to be accomplished, the existing 9-hole golf course could be transformed into a new park and promenade lining Ingalls Avenue and the beach with new residential development on either side.



**PROPOSED KREBS AVENUE/LIVE OAK DEVELOPMENT**

Krebs Avenue and Live Oak Avenue offer excellent opportunities for new housing close to downtown and other neighborhood amenities. The existing sites are under-utilized and could be planned to accommodate a variety of house types including 25-foot wide row-houses closer to downtown and single-family dwellings on other sites. Much of the development could be in the form of in-filling the existing street and block pattern. New streets could be built within some of the existing blocks to create a denser transit- and pedestrian-oriented community.

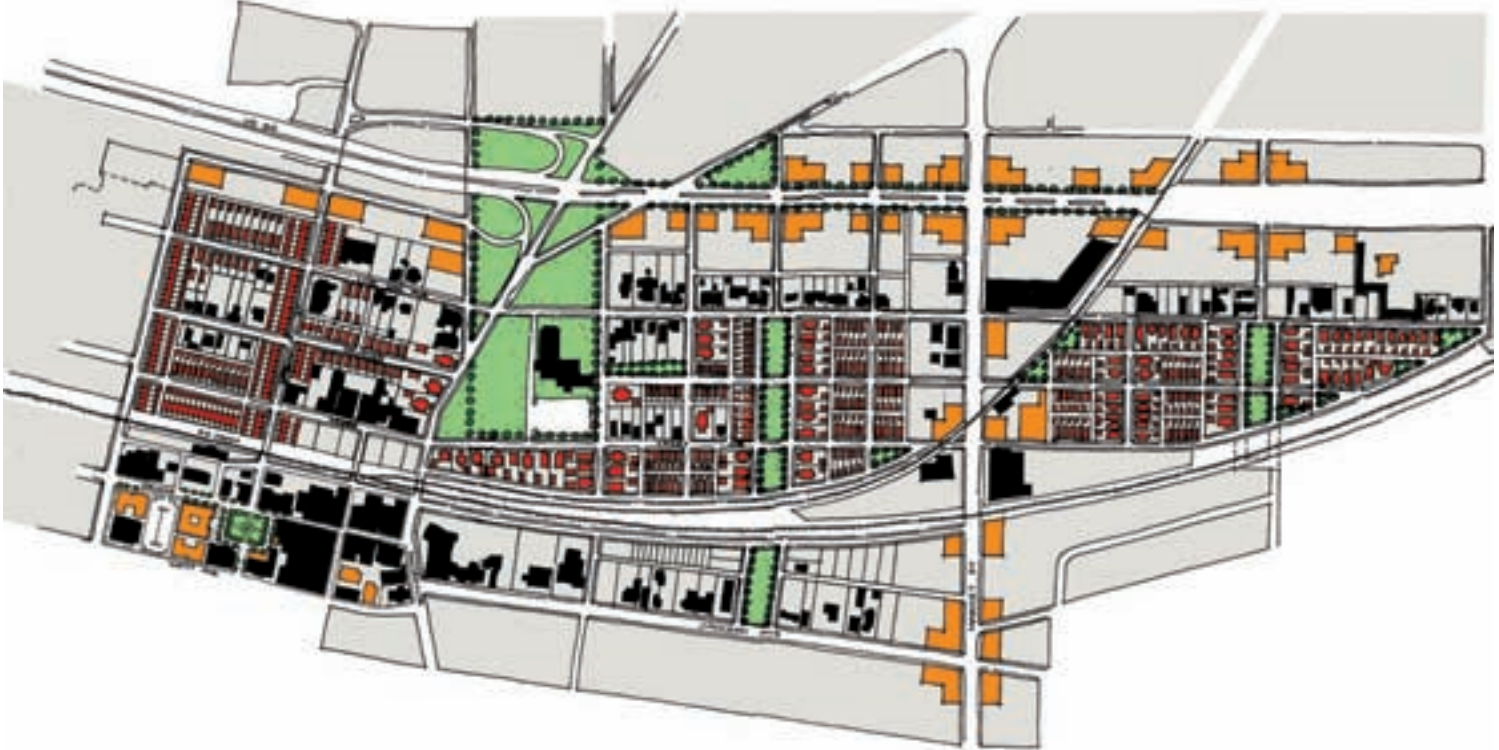
A new park is proposed at the gateway to Pascagoula where Highway 90 meets Pascagoula Road, Telephone Road and River Road.



Existing view of Krebs Avenue.



Proposed view of Krebs Avenue.



370 dwellings are proposed for Krebs Avenue/Carver Village.



Proposed buildout of Belair Shopping Center on Old Mobile Highway (at left) would include 225 dwellings. Above, existing condition.

**BELAIR AND LIVE OAK VILLAGE**

The existing 12.5-acre Belair Shopping Center site on Old Mobile Highway is an excellent opportunity for a new housing site. The Phase 1 plan shows how 72 new dwellings could be built on the site arranged in blocks surrounding a new neighborhood park. Typical parcels are 50 feet wide x 100 feet

deep, with a 30-foot wide, mid-block alley behind. The new park is designed to lead to a larger park along the creek to the east.

A second phase could rebuild the Live Oak site on the other side of the Old Mobile Highway. Here existing, semi-detached cottages could be replaced with regular homes on standard 50 foot x 100 foot lots. 150 dwellings could be built on this site. These

new dwellings are shown fronting onto a continuous greenspace that links the two parts of the site under the 14th Avenue overpass.

A new 6,500-square-foot neighborhood retail center is shown at the intersection of Old Mobile Highway and 14th Avenue, and some stacked flats are shown on the parcels behind overlooking the park strip.





Existing condition.

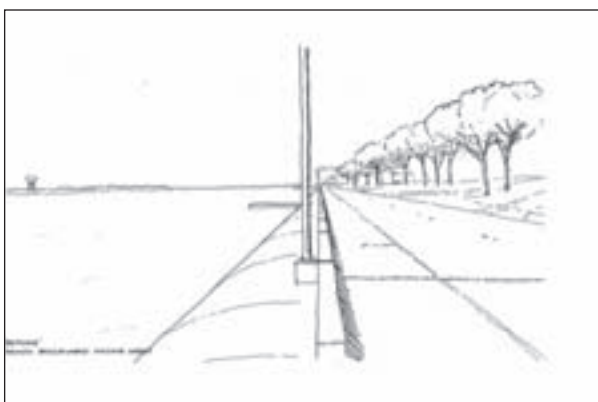
### GOLF COURSE SITE/PANHANDLE PARK

One of the proposals put forward is to relocate the existing, 9-hole Golf Course from its present location between Ingalls Avenue and Washington Avenue to a new location near the Bayou Cassote, adjacent to the city's existing soccer fields, where an 18-hole course could be built. This suggestion was put forward by members of the city in the discussions about a vision for the city's future.

If this were to occur, the existing site could be transformed into a new neighborhood park with additional, high-end housing along its perimeter. The drawings show how a new Panhandle Park could extend from the existing Beach Park half-a-mile inland as far as Ingalls Avenue. Single-family dwellings on wide lots could line the park on both sides.



Proposed plan.



Existing condition.



Proposed plan.

### BEACHFRONT PROPOSAL

The original sea wall was built in 1929 and consists of a curved, concrete wall between the road and the water. The road is approximately 30 feet wide with two traffic lanes and a striped zone for bicycles and pedestrians. The safety of both pedestrians and cyclists are compromised by this arrangement. At the beach an additional concrete wall separates the sandy beach from the sea wall and protects the beach from erosion. The existing sea wall does little to protect the shore from a tidal surge in the event of a hurricane.

The proposed modifications recommend building a new rip-rap sea wall about 100 feet offshore and to create either an extension of the beach or a new wetland zone where an existing creek enters

the Gulf. This zone will help restore the shore to something more like its original condition as well as provide protection in the event of a tidal surge.

It is also recommended that a new pedestrian promenade be built on top of the existing sea wall in order to provide adequate provisions for pedestrians. Two new cycle lanes can then be created on either side of the existing roadway. A line of new street trees can be planted along the edge of the new promenade by saw-cutting through the existing sea wall to provide adequate root space.

The result will be an improved amenity for the community, additional safety for pedestrians and cyclists, as well as improved protection along the shore.





# MOSS POINT

Located inland on the Escatawpa River, Moss Point is another community that suffered somewhat less than its neighbors. This matters little, though, to Mayor Savior Bishop, who views the damage and the Mississippi Renewal Forum as “an opportunity to establish a vision where there wasn’t one.”

This fledgling vision includes an effort to rework and reknit Moss Point’s downtown, which was split apart by a new bridge for Highway 63. Reviving the

historic character of Moss Point’s Main Street can be achieved through the construction of a new city hall and police station, a renovation and addition to the fire station, the addition of other mixed-use buildings, and an expansion and enhancement of the waterfront.

The team also is suggesting both a trolley and a natural walking path connecting Moss Point to Pascagoula’s town center 3 miles away.

Above: Aerial view of downtown Moss Point waterfront.



**LOCATION AT THE CONFLUENCE.**  
Leveraging Moss Point’s most basic assets – it’s location at the confluence of the Escatawpa and Pascagoula Rivers and its access to regional employment centers, markets and amenities via rail and roads – is fundamental to the plan’s revitalization.

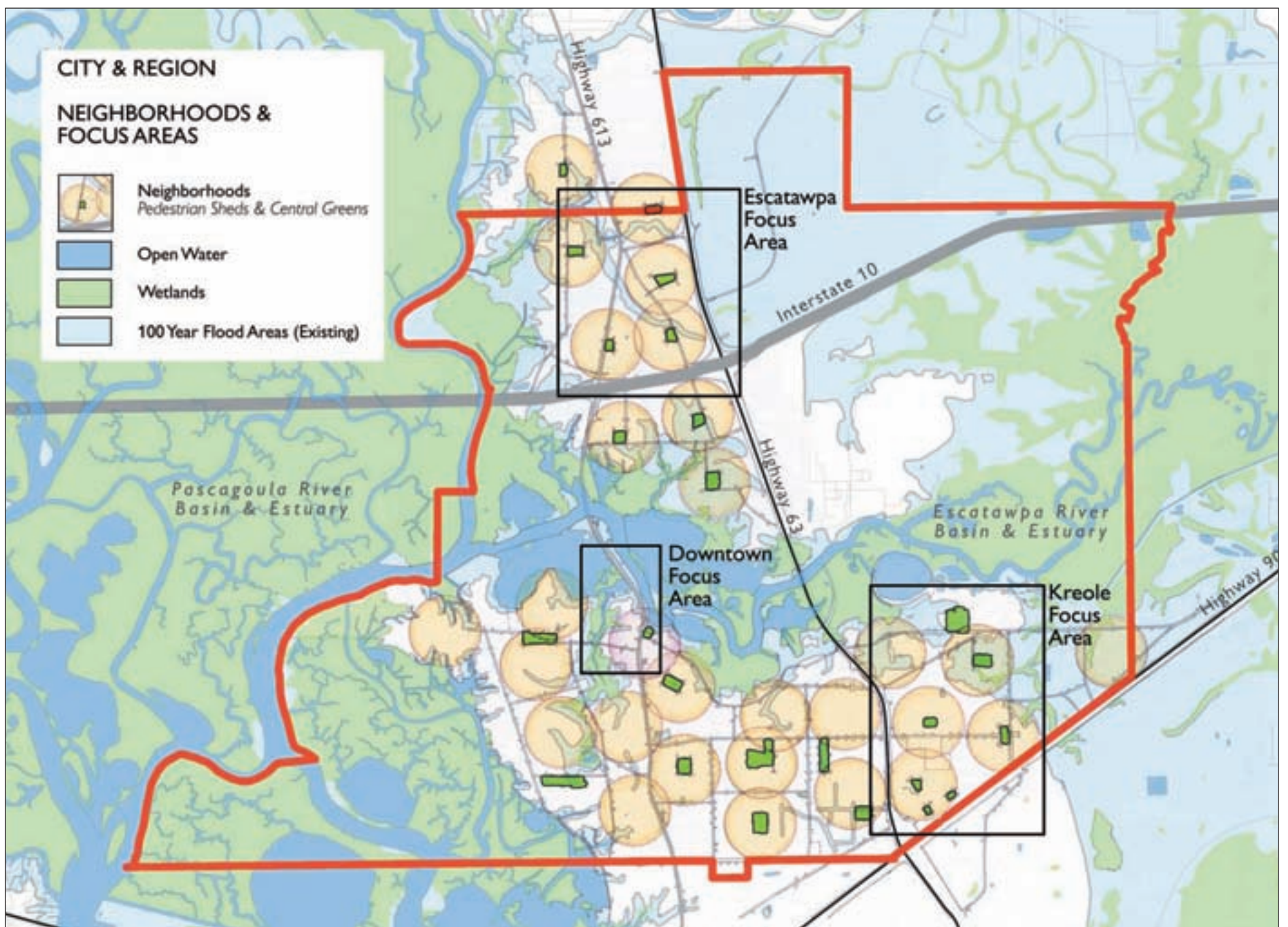


Mayor Xavier Bishop consults with Moss Point charrette team leader, Steve Schukraft.



# Strategic Actions

- Ensure Moss Point's interests are fully represented in regional dialogue regarding federal assistance, economic development, transportation, and the conservation of natural and cultural resources.
- Offer more housing choices by allowing a wider range of types in places with distinct locational advantages — high ground and ready access to service amenities, and public parks, squares, and recreation resources.
- In light of FEMA's proposed redefinition of flood zones, reevaluate the potential for industrial development on the International Paper site. As the study is underway, suspend plans for the widening of Grierson.
- Through the formal adoption of a customized version of the SmartCode and follow-up neighborhood plans, promote development that defines neighborhoods as the essential building block of the city. Design for interconnected and properly-scaled streets, central public parks and squares, a wider range of housing types, and neighborhood services and elementary schools within easy walking distance of residents.
- Establish plans and policies that promote the concentration of retail and commercial development downtown, in the Escatawpa Village Center, and in neighborhood centers throughout the city and limit low density, auto-oriented development along the city's primary travel corridors, including Main Street and Routes 613 and 63.
- Initiate discussions with Pascagoula, Jackson County and state and federal officials regarding the development of a interconnected network of surface trails, water trails, greenways, and nature preserves.
- Seek federal assistance in the remediation of brownfield sites and establish environmental protection measures to protect water quality and neighborhood livability. Include in this effort the evaluation of standards for the installation and maintenance of septic systems.
- Continue and expand efforts to position Moss Point as a gateway to the region's environmental and cultural resources through eco- and cultural-tourism and "green" industrial development.
- Pursue recognition through state and federal heritage area, outdoor recreation, preservation, and environmental programs and initiatives.
- Recruit businesses that offer models of effective environmental stewardship.



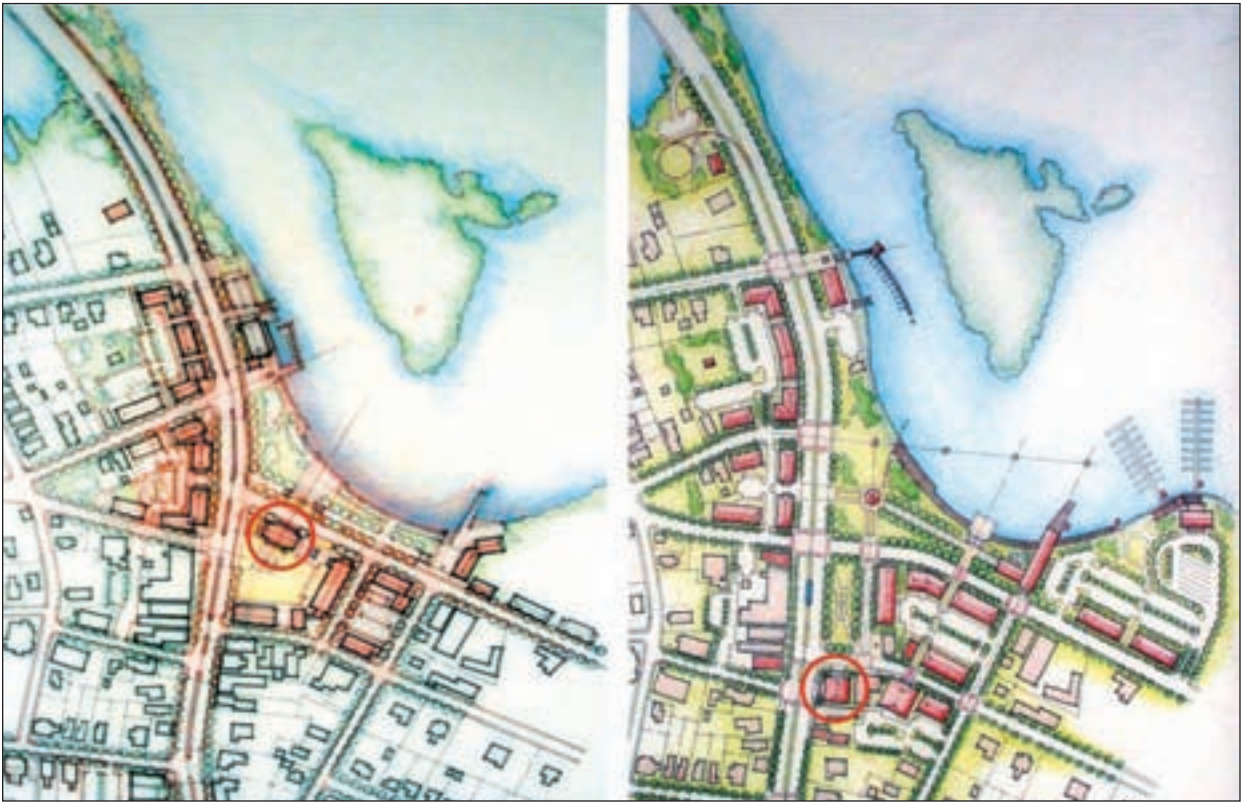
Three focal areas — Escatawpa Village, Kreole and Moss Point's downtown — have been identified as places to concentrate retail and commercial centers.





**DOWNTOWN REGENERATION**

Reestablish downtown as a lively, beautiful, walkable precinct with shops and restaurants, a wider range of housing opportunities; new civic buildings above proposed flood elevation; and new public spaces for community events and activities. Create a critical mass of activity by favoring downtown locations for eco- and heritage-tourism and educational facilities.



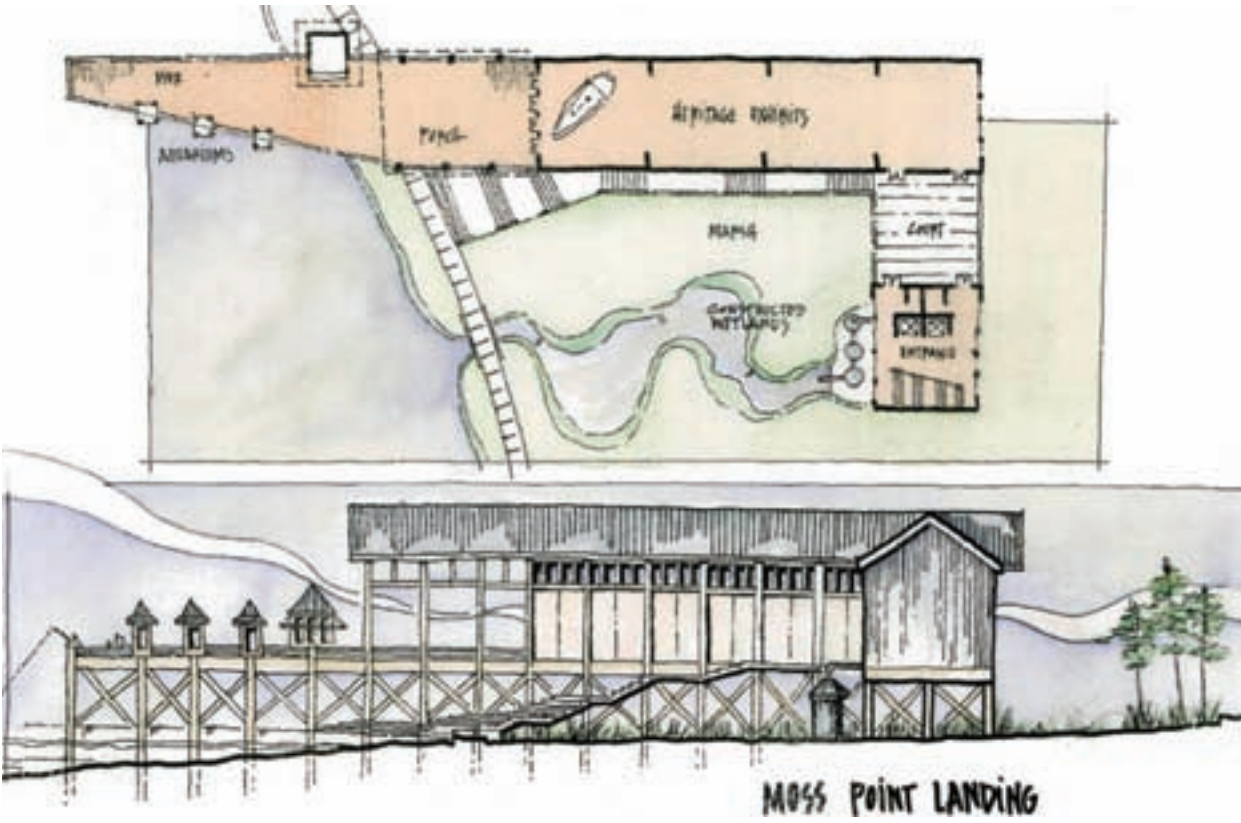
The team’s early studies for downtown explored alternative sites for City Hall (red circles,) options for a new town square and the expansion of river front park, and alternative street and block configurations.



A short-term initiative is to construct a new City Hall on the central block — outside limits of advisory velocity zones.



An environmental and cultural education facility is recommended to anchor the east end of riverfront park.







### KREOLE DISTRICT RENEWAL

The new village green on Martin Luther King Boulevard – framed by townhouses, a small café or market, and elderly housing – provides a place for informal socializing, neighborhood events, and community celebrations.

New cottages along existing and proposed streets serve as receiving sites for individuals and families opting to move out of flood prone areas.

As relocations occur, properties in flood prone areas become part of the Kreole Park and Preserve, a primary natural area with restored wetlands, hiking and biking trails, and space for recreation facilities.

A new neighborhood, centered on a triangular park, serves as another receiving site for those moving out of flood prone areas.



View of village square looking east along Martin Luther King Boulevard.

### ESCATAWPA VILLAGE RENEWAL

Provide a framework for sustainable neighborhood development and renewal in Escatawpa north of I-10. Support the development of a new village on high ground north of I-10 on the west side of Route 63 designed to include a limited service hotel, restaurants, neighborhood shops, elderly housing, townhouses, and cottages.



A village green framed by townhouses and elderly housing provides a place for informal socializing and neighborhood events and activities.







Illustration: Gary Justiss

Rebuilding on the Gulf Coast should include mixed-use buildings that would provide residential spaces elevated above a parking level lined with flood-proofed commercial space at street level. This plan also features an elevated shared courtyard.

# ARCHITECTURE

## Housing Options for the Mississippi Gulf Coast

BY JASON MILLER

New urban planner and Gulf Coast charrette participant Stefanos Polyzoides summed up the reality of rebuilding Mississippi's Gulf Coast communities when he said, "You have two choices: Either scrap the town and move north, or create a town that can take a swim every 30 years."

Since the former choice is not likely to be embraced by residents of the 11 communities analyzed during the Mississippi Renewal Forum (MRF), the latter will likely be their chosen path. Houses and other buildings will be raised above potential flood levels, hardened and waterproofed to withstand a storm surge, or constructed of materials that do not support mold growth as they dry.

The central challenge to the rebuilding of houses is a familiar one: affordability. While reconstructing storm-resistant houses, the question is not whether appropriate measures can be taken to make a home resistant, but what those measures do to the affordability of the home. Typically, they obliterate it.

At the outset of the MRF, a 12-member architecture team led by Albuquerque-based Susan Henderson of PlaceMakers offered a variety of options for creating affordable housing and housing that would accommodate future storms, while respecting traditional Mississippi building types. On the affordable housing front, their goals were

to increase the supply of such housing while facilitating the rebuilding of existing housing stock. Their strategies to accomplish this were myriad:

- Change zoning to allow outbuildings and temporary trailers on a single-family site.
- Allow live/work and residence over professional office and retail.
- Allow for adaptive reuse of existing buildings.
- Encourage modular/prefabricated structures with individual identity.
- Design housing with simplified economical shapes.
- Reopen mobile home plants to build modular housing.
- Create legislation for transfer of development so homeowners can swap land for higher ground.
- Engage Habitat for Humanity and other volunteer groups.
- Convince FEMA to allow residents to choose to accept risk and not require flood insurance or higher foundation requirements.
- Keep vernacular architecture.
- Create a levee system to eliminate require-

ments to raise structures.

- Adopt policies such as inclusive zoning for medium and high density housing development.

Before and during the charrette, numerous design options flowed from the architects' pens, each design addressing affordability, livability and longevity in innovative and thoughtful ways. Work began just two weeks before the charrette, with the architects sending in electronic images and CAD files of dozens of designs and high-quality, efficiently assembled renditions of the Biloxi cottage and other types that reflected the existing vernacular. The designs were met favorably by mobile home manufacturers at a meeting convened by team member Steve Mouzon — a gathering that ended with industry members asking for more detailed drawings so they could get to work upgrading their product.

Team member Gary Justiss brought a classic shotgun cottage to the table. Eric Moser brought designs for a well-detailed kit home composed of modules that allow a 300-square-foot temporary home to grow into a six- or seven-room permanent residence. Marianne Cusato delivered three versions of a cottage intended to be immediate housing for workers and displaced residents, and designed to be manufactured or built on-site as an alternative to trailers.

During the charrette, California developer R. John



## AFFORDABLE HOUSING OPTIONS



**A study of how to engage temporary housing into permanent solutions.**



This 784-square-foot, two-bedroom cottage may be manufactured, modular or panelized. It has a generous, open living area and comfortably sleeps four. The sideyard typology allows for a very large porch for three-season living in the Gulf Coast region.



This is a 28-foot-wide cottage with 1,232 square feet that may be constructed as a doublewide manufactured home or from modular construction.

Anderson concentrated on affordable housing that could start as a temporary dwelling and end up being permanent. “We focused on the idea of a small, well-built, regionally appropriate house — one that can be driven over the road, then quickly site-built,” he said.

ferred, said Anderson.

■ HUD-spec houses, a.k.a. trailer homes built to HUD specs, could be single- or double-wide, and placed on foundations, “although that’s a little awkward,” said Anderson.

### MANUFACTURED HOUSES:

- Panelized houses, which are assembled on-site from pre-assembled open-wall panels or sheered panels (panels with plywood or OSB).

A variety of affordable housing types were of-

■ | TO PAGE 64

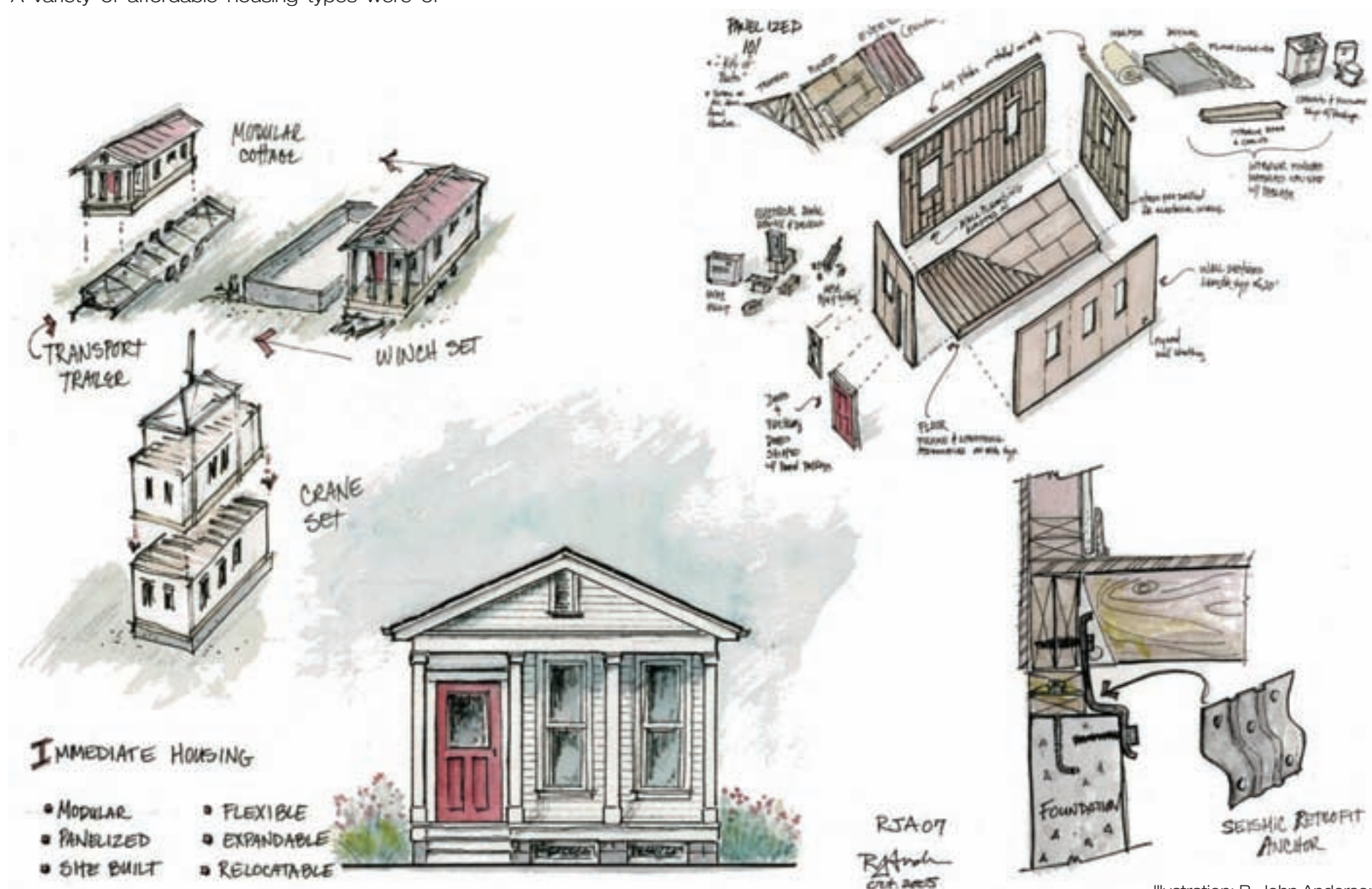


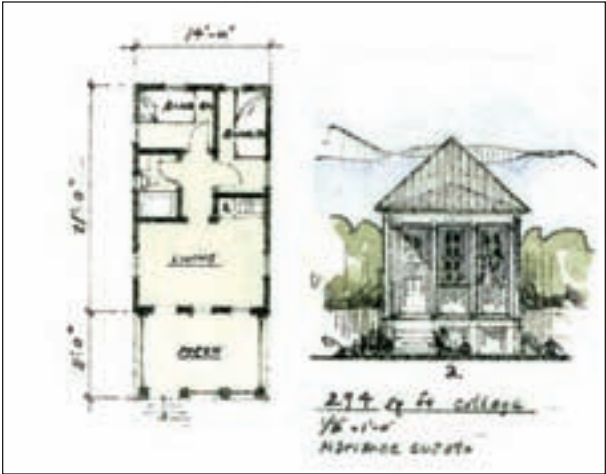
Illustration: R. John Anderson

This image illustrates the schematics and technology of modular and panelized construction techniques that are critical to speedy, affordable housing.



EMERGENCY HOUSING OPTIONS

Illustrations: Marianne Cusato



Three versions of the same small-scale emergency housing intended for immediate housing for workers and displaced residents. These can be manufactured or built on-site for about \$25,000.

This small-scale emergency house is intended for immediate workforce housing and for displaced residents. It can be manufactured, modular construction, panelized or stick-built on site.

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- Modular houses, which are essentially framed boxes built on a rigid wood floor that can travel down the road and be lowered onto a foundation on site. A house could be a single module, or two modules side by side, or two modules stacked, etc.
- Structural insulated panel (SIP) houses, the walls (and sometimes the roofs) of which are composed of insulating foam sandwiched between two OSB panels.

Local architect Allison Anderson balanced the single-family offerings with a modern, mixed-use building that housed commercial retail space on its ground floor, with flexible living space above.

With new FEMA flood zone maps and height recommendations looming, team members began drawing buildings on stilts – and they were none too pretty or feasible, said R. John Anderson. “The buildings were so high they wound up looking like ridiculous lighthouses. At some point, the elevation becomes absurd. It’s not that much more expensive to build immediate, movable houses, ones that can be moved down the street.”

The elevation issue is one that is here to stay, and will certainly affect – even hinder – future development, said Henderson. “It shows that the existing traditions really can’t continue in some places. We need to work on establishing new traditions.”

In the end, construction speed is just as important

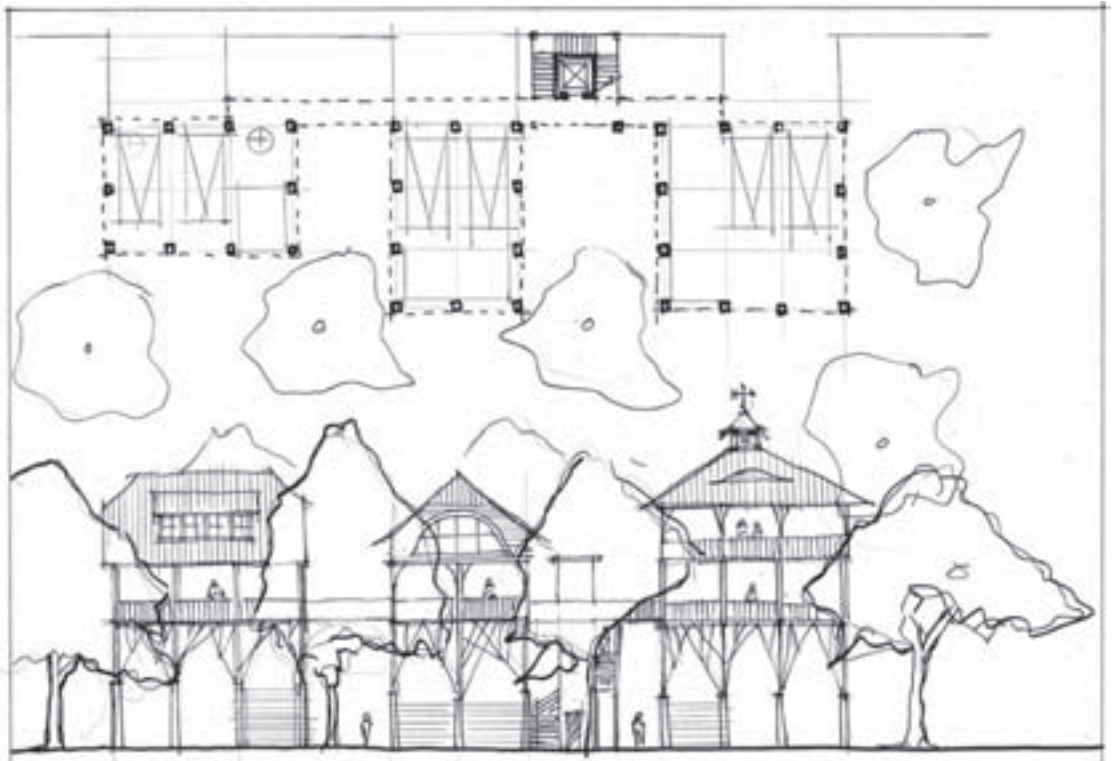
as aesthetics, said Anderson. “We need to marry the technology with a building type that’s recognizable as being from the Gulf Coast. They’ll need pre-permitted, site-built houses, with assembly instructions. Not pre-cut, but coherently sourced, so that if Lowe’s or The Home Depot gets an order for a ‘582-square-foot model,’ they’ll know what to drop at the site.”

The architecture team’s efforts will continue on Nov. 17, at a conference in Hattiesburg, Miss., of Mississippi-based manufactured housing providers, said Anderson. “We’re trying to get a presence there, to explain what we’re trying to do.”

VELOCITY ZONE HOUSING



One solution for an apartment building in a velocity zone with an advisory flood elevation of 25 feet. The first level is designated for parking while upper floors are residential.



Several studies for cottages radically elevated to meet new FEMA flood elevations in low-lying coastal areas were drawn at the charrette.



## MIXED-USE HOUSING OPTIONS

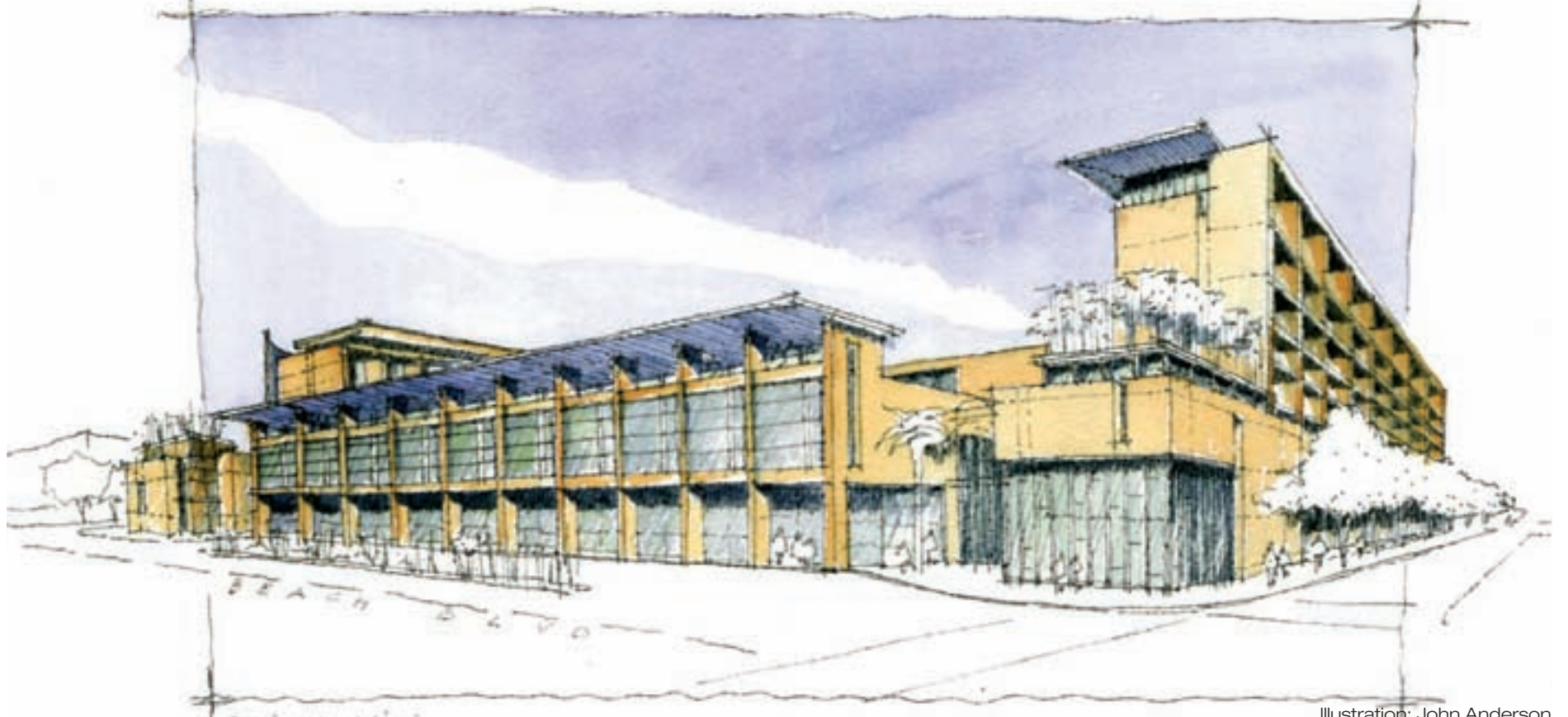


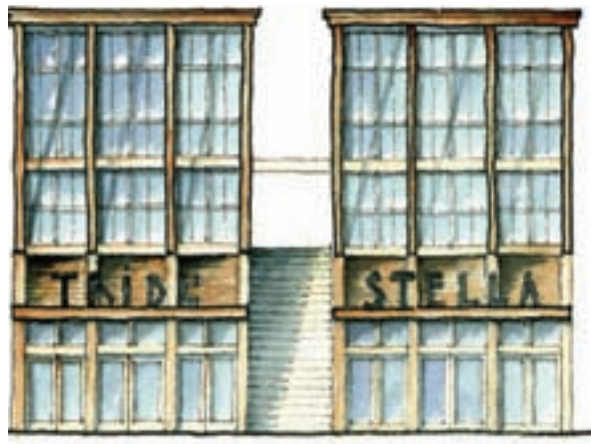
Illustration: John Anderson

A “boutique” casino might be configured on a single block north of Beach Boulevard in Biloxi. Parking is buried mid-block. Hotel lobby and casino is stretched along the length of the block on Beach Boulevard with restaurant and bar anchoring the corners. An arcade provides shade for pedestrians. North side is lined with residential townhouses.



Illustration: Milton Grenfell

Traditional features such as wide openings, tall ceilings, and appropriate finishes on the ground floor, permit storm surges to flow through this level as a form of wet flood-proofing.



This live/work plan includes first floor retail and two living units above with a shared green courtyard. One unit could be used by the shop owner as a residence, the other for weekly or monthly rental.

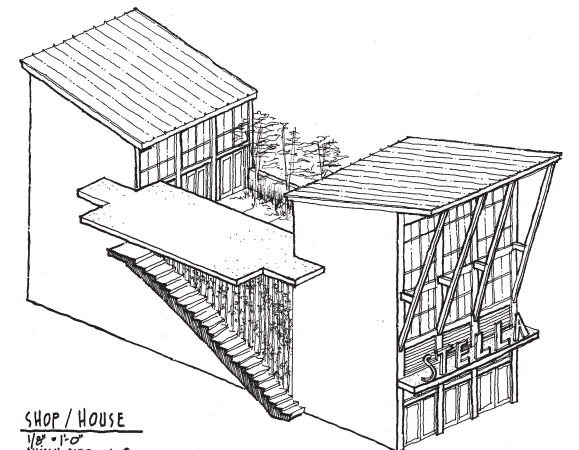


Illustration: Allison Anderson

## Recommended Strategic Actions

### DESIGN ACTIONS

**1. Engage the manufactured, modular and panelized housing industries to do context sensitive design and raise the design standards for affordable housing.**

- Set regional design standards for architectural detail.
- Bring manufacturers to the region for expedited delivery and affordability.

- Continue discussion with Habitat for Humanity to improve design of emergency shelters as well as long-term housing.
- 2. Consider using the Pattern Book for Gulf Coast Neighborhoods and the Book of Architecture for Gulf Coast Town Centers as regulatory documents in the three county regions for traditional architecture.**
- Repair and/or rebuild existing structures with

appropriate regional and local details, using the Pattern Book & Book of Architecture for local traditional design features.

- Build new structures in the historic districts according to the standards of the Pattern Book and Book of Architecture.
- Apply the Pattern Book and Book of Architecture to traditional architecture only. Modernist designs are exempt.

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# Recommended Strategic Actions

■ | FROM PAGE 65

**3. Introduce building types not commonly used in the region to transition in scale from the beachfront high-rises into the neighborhoods.**

- Consider the use of townhouses, courtyard apartments, and mansion apartment houses as a buffer between the single-family detached houses and the mid-rises near the beach.
- Encourage the hospitality industry to return to the historic, mid-rise seacoast hospitality architecture, including the beachside garden court framing a view of the Gulf.

**4. Petition for legislation to augment FEMA prescriptive standards with an additional performance matrix.**

- Create a matrix with building type, construction type and FEMA advisory zone to determine risk-assessment and direct performance requirements.
- Categorize construction based upon Compliant, Resistant and Hardened (see page 70 of this report).
- Use new standards to raise quality of construction and structural connectivity and enable historic, low-lying neighborhoods to rebuild.

**5. Begin a dialog regarding a change in enabling legislation for FEMA to give emergency housing permanent status.**

- Raise quality of design for temporary housing since it likely will be around a long time.
- Design the temporary housing as a true neighborhood with permanent infrastructure so it can evolve into a community.

**6. Offer a range of architectural languages from the traditional to the modern and allow the market to choose.**

**POLICY ACTIONS**

**1. Preserve and restore all significant historic structures with storm damage.**

- Establish criteria to assess building damage that favors preservation and considers demolition the last resort.

- Establish a salvage protocol to recycle historic architectural artefacts from structures that cannot be saved.

**2. Enact legislation to allow historic structures to be rebuilt or restored as they were, where they were.**

- Respect the historical position of streets and buildings when possible.

- Allow historic structures to be reconstructed exactly as they were even if they were more than 50 percent destroyed.

**3. Adopt one standard building code at the regional level.**

- Adopt the IBC 2003 in Hancock, Harrison and Jackson counties.

- Adopt a standard overlay for Hurricane Resistance construction. Essential Public Facilities and Places of Refuge shall meet the Hardened 2 standards.

**4. Create a regional as well as multiple local public/private partnership design and development centers that are responsible for development visioning and design guidance. Establish a public/private partnership that ideally includes backing from a municipality, a university, the business community, and possibly a foundation.**

- Engage in visioning which will serve as a catalyst for development.
- Present the Design and Development Centers (DDC) as economic development tools.

- Develop a location for housing the Centers in the same place as all other planning and development entities that a developer must engage while going through the development process, truly becoming a one-stop shop.

- Serve as a forum for networking within the design and development professions in the region.

- Provide the institutional memory for community vision, interacting with the media on developing issues.

- Create the training ground by and for professionals by using the connections to universities.

Engineering students, law students, sociology students, graphic artists, photographers, etc., can all play important roles. The DDC should also provide courses on good design and development practices to serve as an educational resource.

- Distribute the Pattern Book for Gulf Coast Neighborhoods and the Book of Architecture for Gulf Coast Town Center by mail, and make them available to walk-in visitors, along with a small library of reference books.
- Provide expert consultation on a walk-in and site-visit basis.
- Hold weekend seminars for local architects and designers.
- Establish monthly tear-out prevention workshops at developments under construction.
- Produce a website, an awards program, an email listserv, and organize tours of areas where development is wanted or tours of places to be celebrated.

**MANAGEMENT ACTIONS**

**1. Initiate a program whereby permitting for recovery and reconstruction can be expedited.**

- Create a “permitted-by-right” protocol for all drawings sealed by a Mississippi-licensed architect or engineer. Establish a pre-permitted body of residential work that does not require a professional seal. This shall not apply to structures in a Velocity Zone.

**2. Encourage safe construction practices.**

- Create weekend workshops for contractors and tradesmen in hurricane-resistant construction techniques.
- Increase inspection staff at the municipal level.

**3. Create a town architect position at the municipal level to implement the rebuilding effort.**

- Conduct design reviews.
- Oversee historic restoration.



# The Gulf Coast Pattern Book

Mississippi's Gulf Coast has a rich architectural heritage that has created a collection of neighborhoods remarkable for their diversity and unique regional character. While the architecture of the houses varies from town to town, a common architectural language is shared by the region's traditional builders, which has resulted in the unique character and quality of the neighborhood streets, public spaces and parks, and downtown streets. As we walk along these streets today, or remember doing so in places that are now gone, it is the graceful porches, the ornament on top of a porch column, the grandeur of tall narrow windows, and the gracefulness of a cornice detail that tell us where we are - and who we are.

Several hurricanes in the Gulf Coast region have destroyed many of the buildings that created the character of these streets, neighborhoods and towns. With the urgent need to rebuild, it is essential to find the most efficient and cost-effective means for providing housing and making it possible to resume activities. However, there is also a danger that the essential qualities and character of these places will be lost. The use of mass production, standardized plans, modular units, and the need for speed, could result in producing generic buildings that seem the same as anywhere else.

It is also imperative to make sure the new houses are as well prepared as possible to withstand fu-

ture storms. FEMA is introducing new regulations which will result in further changes in the way in which houses are built.

The Mississippi Renewal Forum has developed concepts for rebuilding towns and cities in new ways as traditional urban environments. That work addresses the larger scale issues of urban patterns, building relationships and town character. "A Pattern Book for Gulf Coast Neighborhoods" has been produced as part of that forum to provide a resource for homeowners, builders and communities as they rebuild both houses and neighborhoods. Whether repairing a damaged house, erecting a pre-manufactured house, or building one with conventional means and methods, you will be able to find the appropriate patterns to guide the process for designing and building in ways that are consistent with the traditions of the Gulf Coast.

This Pattern Book is organized in four sections: The Overview, Neighborhood Patterns, Architectural Patterns, and Landscape Patterns. Each section is designed to provide key information to help you make design and site planning decisions about a planned renovation or new house construction.

The Neighborhood Patterns section opens with a series of illustrations describe the way in which individual houses create a Gulf Coast neighborhood street and illustrations of different types of street including small scale neighborhood streets, larger scale streets, and commercial streets. It then provides a description of the various Gulf Coast neighborhoods and relates them to the Transect

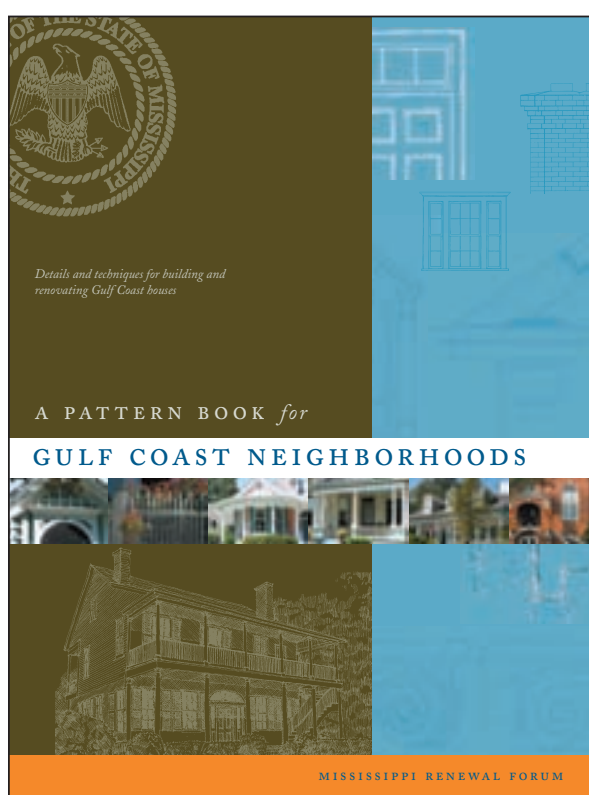
Zones in Smart Code which served as the basis of the conceptual plans that developed in the Forum. Each Zone has an appropriate range of building types and street cross sections. And finally, building types will need to respond to FEMA regulations that control the minimum floor elevation of buildings. In addition to determining the range of appropriate house types, this will require particular care in placing the house on the site and designing the elements such as stairs, porches, and other elements that relate the house to the street.

The Architectural Patterns section presents guidelines for building or renovating a traditional Gulf Coast house within a specific architectural vocabulary. Four primary architectural traditions found throughout the Gulf Coast neighborhoods are illustrated with key details, materials and shapes to help owners determine the appropriate design elements for their house.

The Landscape Patterns section illustrates specific examples of fencing, walls, paving, and driveway types found in Gulf Coast neighborhoods.

An Appendix, listing materials resources and reference materials as well as a glossary, is also included.

*Note: The "Gulf Coast Pattern Book," which was produced by Urban Design Associates, is a companion to this publication. It is available in hard copy and digital form. Visit [www.mississippirenewal.com](http://www.mississippirenewal.com) and [www.tndtownpaper.com](http://www.tndtownpaper.com) for more information.*





# FLOOD HAZARDS

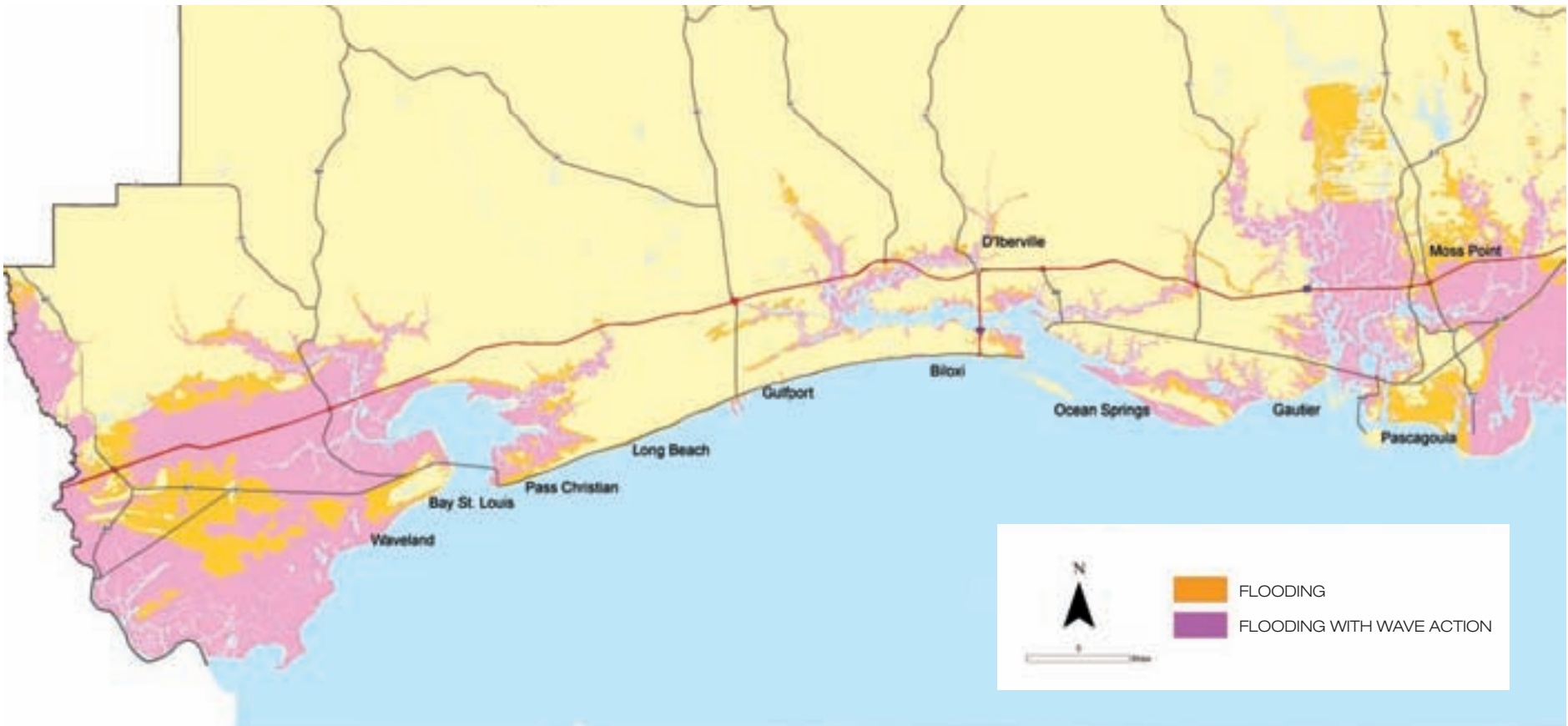


Illustration: Criterion

One of the region’s greatest environmental challenges is reconciling coastal redevelopment and growth with flood hazards. The estimated 100-year event shown here is a generalized summary of preliminary information from the Federal Emergency Management Agency (FEMA) publication “Draft Report: Hurricane Katrina Flood Frequency Analysis; Harrison, Hancock and Jackson Counties, Mississippi, September, 2005.

**FLOOD ZONE DEFINITIONS**

**V ZONES**

According to FEMA and the National Flood Insurance Program, any building located in an A or V zone is considered to be in a special flood hazard area and is lower than the Base Flood Elevation (BFE). V zones are the most hazardous of the Special Flood Hazard Areas. V zones generally include the first row of beachfront properties. The hazards in these areas are increased because of wave velocity - hence the V designation. Flood insurance is mandatory.

**LIVING IN A V ZONE**

If your home is in a “V” zone, FEMA advises that homeowners adhere to the following recommendations:

- The bottom of the lowest horizontal structural member of the lowest floor elevation must be at or above the Base Flood Elevation (BFE).
- Enclosed areas below the lowest floor cannot be used for living space.
- The building must be elevated on piles, piers, posts or column foundation.
- Electrical, heating ventilation, plumbing, air conditioning equipment and other service facilities must be elevated to or above the BFE.

**A ZONES**

A zones - the next most volatile of the Special Flood Hazard Areas - are subject to rising waters and are usually near a lake, river, stream or other

body of water. Flood insurance is mandatory in all A zones because of the high potential of flooding.

**LIVING IN AN A ZONE**

If your home is in an A zone the following is recommended by FEMA:

- The lowest floor elevation must be at or above the Base Flood Elevation (BFE).
- Enclosed areas below the lowest floor cannot be used for living space.
- Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities must be elevated to or above the BFE



Cottages radically elevated to meet new FEMA standards in low-lying coastal areas.





Pascagoula beachfront prior to hurricane Katrina.



Diagrammatic effect of tidal surge during hurricane.



Proposed rebuilding scenario with new structures built in accordance with new FEMA guidelines.

## FIGURING IT OUT

FEMAs "FAQ for Flood Recovery Guidance" and explanatory sheets dated October 3, 2005 for each of the three counties recommend raising the 1 percent chance annual SWELs (Storm Surge Stillwater Elevations) to the following elevations:

### HANCOCK:

SWEL - 20 feet coast; 18 feet for Back Bay

### HARRISON:

SWEL - 18 feet coast, 14 feet Back Bay

### JACKSON:

SWEL - 14 feet coast; 12 feet Back Bay

These are not the advisory flood elevations, which must also add in wave action using the following method:

Advisory Flood Elevation = SWEL + Wave

Wave = 1/2 Depth

### FOR EXAMPLE:

For Hancock County assuming grade elevation of 10 feet:

Gulf SWEL for Hancock = 20 feet

Ground Elevation (z) = 10 feet

Depth = SWEL - z = 20 feet - 10 feet = 10 feet

Wave - 1/2 Depth = .5 x 10 feet = 5 feet

Advisory Flood Elevation = SWEL + Wave = 20 feet + 5 feet = 25 feet

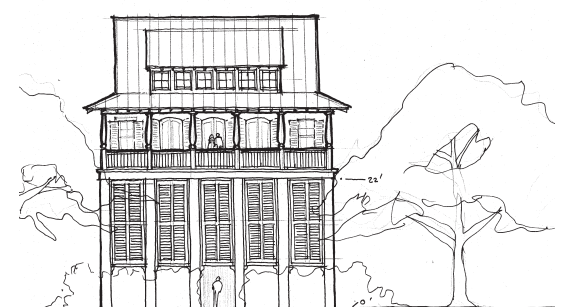
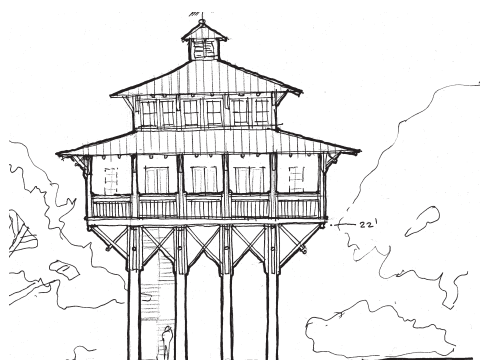
## ARE THERE ALTERNATIVES TO STILT HOUSES?

During the charrette, alternatives to building homes in flood zones on stilts were sought. For one thing, buildings constructed on stilts are more expensive than those built on the ground, and clusters of stilt-homes produce a less than desirable streetscape. In addition, when forced to infill stilt houses among homes left standing on the ground, privacy and aesthetic issues may be at stake.

One option presented by the Biloxi team would be to construct dwellings to be submersible. Submersible homes would be built to withstand

a deluge on an infrequent basis. These homes, built in the Mississippi vernacular, would be constructed on raised porches with hurricane-resistant and mold-resistant building technologies. Porches made of wood would be expendable in the strongest of storms.

The core of the submersible building would be constructed from concrete, concrete block, rasta block, or even well tied down wood. Mold-resistant materials and assemblies that avoid the use of paper and other cellulose-based products would be used to ensure the longevity of these structures after intruding hurricane water recedes.



Houses built on stilts can be somewhat less affordable and create challenges to forming cohesive communities.

Illustration: Gary Justiss



## COMMENTARY

# Designing homes to last

BY STEVE MOUZON

Currently FEMA has only one tool to deal with protecting people and buildings from flooding and its consequences. This tool requires the raising of buildings above the storm surge sometimes to heights of over 20 feet. However, when the only tool you have is a hammer, everything starts looking like a nail. There are other methods that can actually perform better, as houses left standing in some areas of the Gulf Coast clearly illustrate (see sidebar). FEMA standards and practices could and should be changed through whatever means necessary to include the following:

- A. FEMA standards should be performance-based instead of prescriptive in nature as they are currently written. This means that the standards should allow room for future design solutions that may work as well or better than the current standard.
- B. Allow fill material to be used in V-Zones under certain conditions which would include comprehensive planning of fill on neighboring lots with the intent that water flow deflected from one house not damage an adjacent house.
- C. Allow building design in a V-Zone at less than the BFE, understanding that these buildings will occasionally be hit by storm surge. Design these buildings at one of three Levels of Strength (Compliant, Resistant and Hardened) according to hazard level and building importance. These three levels of strength are illustrated below. The allowable projection below the BFE shall be determined according to building type, risk level and level of strength. Risk level shall include a factor recognizing the mutually protecting effect of densely placed urbanism, whether the units are attached (townhouses or main street buildings) or closely adjacent.
- D. Allow portions of buildings to be self-insured. This will remove the onerous requirement upon municipalities of checking for inhabitation of the lower level and will allow buildings to properly meet the ground. As a result, property values of lots that have heretofore been occupied by mansions will be preserved. This will also allow retail spaces to occur in a proper relationship to the street so that the businesses have a chance to thrive.

## THE RESISTANT HOUSE

The story of this house and its accompanying guest house means little without an understanding of its context. The house is located on West Beach in Pass Christian, one of the hardest hit areas of the Mississippi Gulf Coast. It is a beachfront



**The building on the right with the tower is the main house. The other one is the guest house. The yard was filled to an elevation of 14', which begins just behind the tree. The pool terrace wall, which can be seen at the left of this image, was likely responsible for the very light damage to the guest house beyond. This type of construction is not currently permitted by FEMA in V-Zones due to the break-away walls on the first level. Because non-compliance by a small number of properties could result in loss of flood insurance by every citizen in the entire municipality, opaque break-away walls are not a permitted means to address flooding issues. In other words, municipalities are highly likely to require transparent basements, which result in stilt architecture.**

house on High-way 90. One reaches the house by driving close to 2 miles from the center of Pass Christian. No other houses survived on this stretch of road, although there are blown-out and partially collapsed hulks of a few commercial or multi-family buildings closer to the town center.

Further east, one can look past the debris of destroyed beachfront houses and see largely intact houses behind in the second block. But for at least a very lonely mile before reaching this house, not a single building can be seen as far as the eye can see back into the live oaks.

Further west, there is one neighboring house that survived: a low, grey house built in the 1930s entirely of reinforced concrete. The neighbors call it "the castle." Its survival is no secret – it was built like a bunker of thoroughly unconventional construction that is entirely beyond the budget of all except the wealthy.

But the house that is the subject of this analysis was not built this way. It is a wood-frame, brick-veneer house which incorporates features that while expensive should not by themselves push most houses into an unaffordable budget range. These features are the basis for the resistant standard described on this page.

The house and guest house were designed seven years ago by Barry Fox, a New Orleans architect.

At that time the house was located in the A-Zone, however, rather than elevating the house above the flood level, the architect chose to elevate the entire yard to the BFE.

Beginning at the tree in the right side of this image, the grade was raised gradually so that the basement floor is at the BFE of 14'. Because the grade was higher at the house, less water would have flowed immediately past the house. Because no stilts were required due to grading, the house could be much more solidly connected to the ground.

Technically, the house was in an A-Zone, allowing this approach to be used. But when Katrina hit, several miles of coastline surrounding this house clearly experienced catastrophic V-Zone conditions. Those V-Zone conditions resulted in the total loss of all neighboring houses built on stilts as required in V-Zones even though these houses were built to FEMA standards. This house used several techniques illegal in V-Zones, yet survived with shockingly little damage given the severity of the storm surge. Filling to raise the site and excluding water flow under the building should be considered if the owner takes measures to reduce the likelihood of damage to adjacent properties.

*Steve Mouzon is a principal of both the New Urban Guild and Placemakers and serves as town architect in several new urban developments.*



# TRANSECT-BASED ZONING



The transect is a framework that identifies a continuous range of habitats from the most rural (T1) to the most urban (T6). When subdivided, the transect lends itself to the creation of zoning categories.

## A Planning Framework for the Mississippi Gulf Coast

### THE TRANSECT

Before the 2005 hurricane, the local character of coastal Mississippi had already been compromised by “the long hurricane” – the destructive development pattern known as sprawl. Katrina wiped out much of the cheap, homogeneous development along Beach Boulevard, allowing towns to plan for better form and higher quality this time around. At the Renewal Forum in October, local participants expressed that they wanted to protect the character of both their towns and their open country. The best way to do this is to code future development according to the Transect. A transect is a geographical cross-section of a region that reveals a sequence of environments.

Originally, it was used to analyze natural ecologies, showing varying characteristics through different zones such as shores, wetlands, plains, and uplands. Recently it has been adapted to analyze the built environment as well, in a continuum that ranges from rural to urban. In Transect planning, there are six zones organizing the components of place-making: T1 Natural Zone, T2 Rural Zone, T3 Sub-Urban Zone, T4 General Urban Zone, T5 Urban Center Zone, and T6 Urban Core. These TZones organize the human habitat at all scales of planning, from the regional sector to the community pattern to the individual lot and building.

For example, in Biloxi the damaged single-family neighborhoods lining Beach Boulevard are T-3, and the tighter urbanism north of that and in East Biloxi are T-4 ranging to T-3. The mixed-use downtowns or main streets of the coastal Mississippi cities are generally T-5; only Gulfport has any existing T-6. The beaches and wetlands are T-1 Natural, and the farmlands are T-2 Rural.

### TRANSECT ZONES

**T-1 NATURAL ZONE** consists of lands approximating or reverting to a wilderness condition, including lands unsuitable for settlement due to topography, hydrology or vegetation.

**T-2 RURAL ZONE** consists of lands in open or cultivated state or sparsely settled. These include woodland, agricultural land, grassland, and irrigable desert.

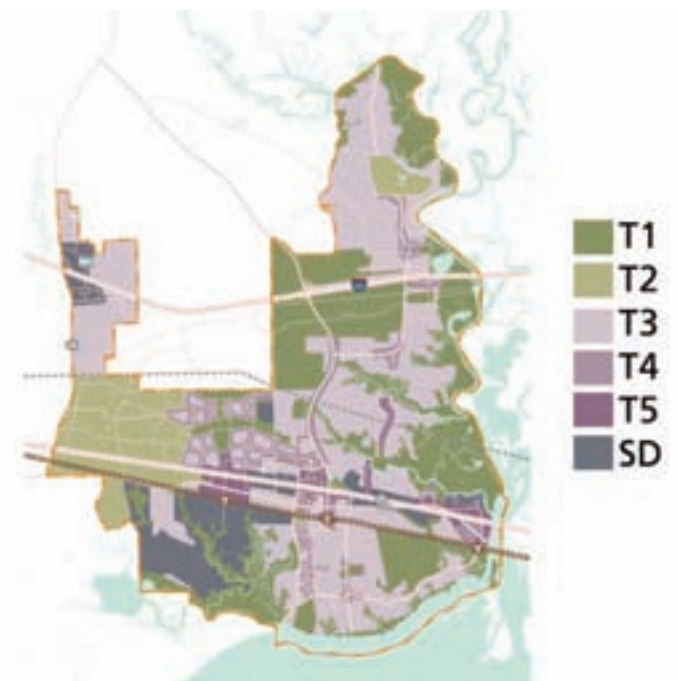
**T-3 SUB-URBAN ZONE** consists of low density suburban residential areas, differing by allowing home occupations. Planting is naturalistic and setbacks relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.

**T-4 GENERAL URBAN ZONE** consists of a mixed-use but primarily residential urban fabric. It has a wide range of building types: single, sideyard and rowhouses. Setbacks and landscaping are variable. Streets define medium-sized blocks.

**T-5 URBAN CENTER ZONE** consists of higher density mixed-use building types that accommodate retail, offices, rowhouses and apartments. It has a tight network of streets, with wide sidewalks, steady street tree planting and buildings set close to the frontages.

**T-6 URBAN CORE ZONE** consists of the highest density, with the greatest variety of uses, and civic buildings of regional importance. It may have larger blocks; streets have steady street tree planting and buildings set close to the frontages.

**SPECIALIZED DISTRICTS** consist of areas with buildings that by their function, disposition, or configuration cannot conform to one of the six normative Transect Zones.



A transect-based code for Gaither shown above.



# A Sample Transect-Based Code for Gauiter

T1-T5 Overlays are intended only for the dozen or so focus areas identified for strategic action. These areas are identified on the Strategic Areas and Regulating Site Plan.

**T1 NATURAL**

The T1 zone consists of the natural and permanent open spaces approximating or reverting to a wilderness condition and intended for preservation. The largest of these discrete zones is the portion of the Sand Hill Crane National Wildlife Refuge that falls within the city boundary; also included are: Shepard State Park, wetlands along the Mississippi Sound, the West Pascagoula River and watershed, Graveline, Mary Walker, and Sioux Bayous, wetlands adjacent to Farrigut Lake, and more isolated wetlands closer to the Sand Hill Crane Refuge and Bayou Castelle.

**T2 RURAL**

The T2 zone consists of areas of Gautier in an open state, that are sparsely settled, and should remain in that condition. This includes the Hickory Hill Golf Course, and a portion of the property on the city's western edge north of new US 90 and south of the Sand Hill Crane Refuge.

**T3 SUB-URBAN**

The T3 zone consists of low density suburban residential areas. Much of Gautier south of the railroad tracks, and north of the regional utility r.o.w. is a T3 zone, exclusive of areas already identified as T1 or T2, or identified as a T4 Neighborhood Center. Areas around the proposed Wonderland neighborhood and Martin Bluff Bend neighborhood will be primarily a T3 zone and should be distinguished from the remaining Conventional Suburban Development (CSD) of Gautier.

**T4 GENERAL URBAN**

The T4 zone includes mixed use, primarily residential fabric focused on identifiable Neighborhood Centers. These include: the Farrigut Lake Neighborhood Center; the blocks immediately surrounding the Martin Bluff Bend neighborhood center; four (4) potential new neighborhoods north of new US 90 between Shell Landing and the Sandhill Crane Refuge; four (4) potential new neighborhoods south of the railroad tracks between Dolphin and Ladner Roads (including the Graveline Neighborhood Center); and areas between the more intense TZones at the Marina Center and the De La Pointe Main Street.

**T5 URBAN CENTER**

The T5 zone consists of higher density, mixed-use building types that accommodate retail, offices, and denser residential building types. The T5 zone applies to the areas around three (3) proposed new transit stops along the railroad right of way, the redeveloped Singing River Mall area, the new main street along De La Pointe, and the Marina Center at the West Pascagoula River point. The transit stops include: the Shell Landing Gateway, north of the tracks, extending past Spanish Trail (old 90) and to both sides of new US 90, connecting to the proposed Sandhill Crane neighborhoods to the north; the Gautier Center transit stop at Ladner, connecting to the Mississippi Gulf Coast Community College and Singing River Mall redevelopment; and finally, the stop at the mouth of Bayou Pierre.

**T6 URBAN CORE**

As Gautier seeks to define more distinct and concentrated areas of built form and development, which do not currently exist, it should rely on T5 zones as the areas of highest concentration. The T6 zone is not applicable to Gautier for its foreseeable future.

**SD SPECIAL DISTRICTS**

The SD zone identifies areas of the City where sites with existing specialized uses or unique community character require individualized development standards. The SD zone is applied to the following areas, each of which are intended to have development standards specific to the community's objectives for each.

## Building a Better Gulf Coast

### CSD

Conventional Suburban Development



Commercial street with six-lane highway.

### TND

Traditional Neighborhood Development



Main street on a boulevard.



Front-loaded tract housing.



Alley-loaded residential types.



Subdivision with front-loaded homes on cul-de-sac.



Village center with central green and mixed-use building types.



Gulf coast resort strip.



Gulf-front town with shore drive.



# The Charter for the New Urbanism

The Congress for the New Urbanism views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community-building challenge.

We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.

We recognize that physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.

We advocate the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

We represent a broad-based citizenry, composed of public and private sector leaders, community activists, and multidisciplinary professionals. We are committed to reestablishing the relationship between the art of building and the making of community, through citizen-based participatory planning and design.

We dedicate ourselves to reclaiming our homes, blocks, streets, parks, neighborhoods, districts, towns, cities, regions, and environment.

## THE REGION: METROPOLIS, CITY AND TOWN

We assert the following principles to guide public policy, development practice, urban planning, and design:

1. Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.

2. The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.

3. The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.

4. Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.

5. Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.

6. The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.

7. Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.

8. The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.

9. Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing,

and community institutions.

## THE NEIGHBORHOOD, DISTRICT AND CORRIDOR

10. The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.

11. Neighborhoods should be compact, pedestrian-friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.

12. Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.

13. Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.

14. Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.

15. Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.

16. Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.

17. The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic

urban design codes that serve as predictable guides for change.

18. A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

## THE BLOCK, THE STREET AND THE BUILDING

19. A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.

20. Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.

21. The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.

22. In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.

23. Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.

24. Architecture and landscape design should grow from local climate, topography, history, and building practice.

25. Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.

26. All buildings should provide their inhabitants with a clear sense of location, weather and time. Natural methods of heating and cooling can be more resource-efficient than mechanical systems.

27. Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.





Over 200 people participated in the Mississippi Renewal Forum held at the Isle of Capri.

MAYORS

- Matthew J. Avara, Jr. - City of Pascagoula
- Xavier Z. Bishop - City of Moss Point
- Edward A. Favre - City of Bay St. Louis
- A. J. Holloway - City of Biloxi
- Malcolm Jones (Acting) - City of Pass Christian
- Tommy Longo - City of Waveland
- Connie Moran - City of Ocean Springs
- Pete Pope - City of Gautier
- Rusty Quave - City of D'Iberville
- William Skellie, Jr. - City of Long Beach
- Brent Warr - City of Gulfport

COUNTY SUPERVISORS

HANCOCK

- Jay Cuevas, Supervisor
- Steve Seymour, Supervisor
- Lisa Cowand, Supervisor
- David Yarborough, Supervisor
- Rodrick Pullman, Supervisor

HARRISON

- Bobby Eleuterius, Supervisor
- Connie Rockco, Supervisor
- William Martin, Supervisor
- Larry Benefield, Supervisor
- Marlin Ladner, Supervisor

JACKSON

- Frank Leach, Supervisor
- John McKay, Supervisor
- Tim Broussard, Supervisor
- Robert Norvel, Supervisor
- Manly Barton, Supervisor

The Team

The Mississippi Renewal Forum - October 12-17, 2005

Biloxi, Mississippi

NATIONAL TEAM

- Joanna Alimanestianu, Belgium
- Eliot Allen, OR
- Robert Alminana
- Torika Alonso-Burford, FL
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