THE PEOPLE’S PLAN
for overcoming the hurricane katrina blues

a comprehensive strategy for building a more vibrant, sustainable, and equitable 9th Ward
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Columbia University
ACORN Housing Policy (Washington, DC)
University of Illinois - Urbana-Champaign
ACORN Housing (Chicago, Illinois)
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New Orleans’ 9th Ward is located downriver from the French Quarter in the southeastern quadrant of the city. The 9th Ward is bounded by Esplanade, Elysian Fields and Florida Avenues to the west, Chef Menteur and Interstate 610 to the north, the St. Bernard’s Parish border to the east, and the Mississippi River to the south.

Throughout the Peoples’ Plan, the 9th Ward refers to the 7th and 8th Planning Districts. The maps above delineate the 7th and 8th Districts and their neighborhoods.

Over half of the 9th Ward is situated below sea level. The white and blue lines show these elevations where most of the flooding occurred. The majority of the poor population in the 9th Ward live in these areas. Higher elevation areas are along the banks of the Mississippi and industrial canal.

Levee failure and flood damage resulted from heavy rainfall and winds as New Orleans was brushed by an arm of the hurricane. In the 9th Ward, flooding extended to St. Claude Avenue and engulfed lower neighborhoods. Only blocks immediately adjacent to the Mississippi levee were spared.
The 9th Ward contains **Four Historic Districts**, which appear on the National Registry of Historic Places:

- Faubourg Marigny District
- Holy Cross District
- New Marigny District
- Bywater District

**St. Roch Market** is a historical structure and cultural landmark of great importance to the history, character, and identity of these neighborhoods. Bringing the market back could serve as a catalytic economic development project for the area and would offer an inspiration for other development and redevelopment projects.

Recognizing that there already was a deeply engaged group of citizens involved with the market and its future, a group of 36 students, 3 alumni, and 4 faculty from Cornell undertook a study trip in the Spring of 2006, assessing the market’s post-Katrina condition and possibilities for rehab and redevelopment.

The rich social history, unique architectural features, protected open spaces and scenic views of the 9th Ward represent a significant resource, which, when guided by the local residents, institutional leaders, elected officials, and their regional and national allies, such as the National Trust for Historic Preservation, can support the long-term recovery of the 9th Ward.
existing conditions

In order to determine key areas for investment in public infrastructure that will foster swift recovery, ACORN Housing – University Partnership team investigated current conditions of street-level infrastructure. We surveyed 42 sample blocks throughout the districts to assess the conditions of street infrastructure, including pavement conditions, street signs, fire hydrants, and storm drains.

Street conditions, even in severely flooded areas, were generally rated “fair” or better. Streets conditions were “fair” where the pavement allowed easy passage by car or bicycle but the presence of scrapes, cracks, or missing pavement require repairs. However, along several streets that rarely entered our sample, ground subsidence and pavement buckling has made street tops nearly impassable.

Most traffic lights surveyed were not functioning. Missing street signs announcing street names were more frequent than missing stop signs, but both pose a dangerous problem. In the Lower 9th, many unlabeled streets have been replaced by unofficial, hand-painted signs created by non-governmental organizations.
Systematic, block-by-block disposal of road debris by a conglomeration of residents from the area can prove more efficient and economical. The following steps will lead to a more rapid recovery:

- Initiate disaster debris pickup.
- Create a director’s board.
- Award local contracts and encourage local hiring.
- Repair houses and streets systematically and holistically.
- Identify types of debris and designate locations for disposal.
- Consolidate similar materials to increase recycling possibility.

Street medians can become more functional and pleasing with some pruning, a series of targeted projects (e.g. the adopt-a-neutral-ground program from Parkway Partners), and a series of design projects:

- Enlarge the median along St. Claude to accommodate a proposed streetcar line and walking-paths for pedestrians.
- Bike paths can run along a center aisle of the neutral ground for recreational and commuter use.
- Implement heightened curbs and pedestrian-protecting treatments (like 'curb skirts').
- Support continued tree planting efforts.
- Add street furniture along neutral grounds to set the tone of these avenues as civil, public spaces to be used recreationally and economically.

“In poor sidewalks - they are not maintained ... they have gaps. My daughter is in a wheelchair and the unevenness of the pavement makes it very difficult for her to get around.”

(9th Ward Resident)

In an effort to encourage residents to return home, infrastructure repairs (water, electric, gas, sewer, drainage systems) should be made to the major arteries, collector streets, and service streets. These should occur first on a block-by-block basis where the rate of resident return is the highest with an eye towards future improvement costs. Drains need to be cleaned, lines restored, and streets repaved. Doing so without incurring future costs will depend upon thoughtful critique of existing systems, guidance of land use maps, and updating current infrastructure in conjunction with other city departments and the quality of life goals of residents.
**land use**

While significant variations in land use exist within the various neighborhoods comprising the 9th Ward, residential uses, primarily single and small multi-family buildings (less than 5-unit buildings) dominate, followed by neighborhood-oriented retail, community and public facilities, industrial and warehousing facilities, and shipping and port facility uses. The neighborhood also contains three public housing facilities: Florida, Florida Avenue, and Desire. In the past, these projects provided critical housing for families with extremely low incomes.

**pre-katrina land use**

Four distinct block types have been identified in the study site: compact, polar, scattered, and empty. As one moves from the city center towards the outskirts of the Lower 9th, the progression from a solid, compact block structure in the Western part, to a dominantly polar type in the middle, and a predominantly scattered type in the East becomes evident. Another trend is the progression from a compact block typology along the banks of the Mississippi to a looser one in the Northern areas. The blocks that were worse off before Katrina were also the ones that got damaged the most during the hurricane.
A new land-use plan for the Ninth Ward, devised with accurate flood plain maps and new building standards and designs could restore confidence in people to return and be used as a guide for ecologically responsible rebuilding in certain areas of the Ninth Ward. Maps that overlay topography, soil types, depth-to-water table zones, pollution zones, and main drainage areas ought to be compared to new building standard overlays after which local land use pattern options can be considered with the community.

A survey done by Cornell students and faculty in October 2006 showed that residents were mostly concerned about the undesirable appearance of the neighborhood, rent inflation and lack of funds to rehabilitate homes, shortage of local jobs and retail opportunities, poor educational facilities, endemic crime, and lack of alternative occupational/recreational opportunities for youth. Redeveloping the neighborhood’s major arteries and creating a series of strategic nodes and condensers could respond to these problems by attracting people and businesses and by creating a vibrant and dynamic community.

We propose public investments in three nodes of activity: at the intersection of Press St. and St. Claude Ave., around the St. Claude bridge between the Lower Ninth and the Upper Ninth, and at the intersection of Tupelo St. and St. Claude Ave. These nodes should be landscaped and developed to include institutional and private uses that serve a large clientele. They could serve as points of socio-economic activity and as general meeting points for people.

The Upper 9th, and the Lower 9th are separated by the Industrial Canal, with limited opportunities for bicyclists and pedestrians to cross over. We propose the creation of a green loop along the St. Claude and Claiborne bridges, bounded Westward and Eastward by Poland Ave. and Eastward by Reynes St. Enlarged pedestrian and bike paths along the bridges, as well as landscaping along the loop will serve as an invitation for people to cross from one neighborhood to another.
Fifteen teams of university students conducted a physical and recovery conditions survey of the residential housing on 165 blocks in Planning Districts 7 and 8. The survey covered 12% of the building stock in these districts. The teams captured information on the types of residential structures and the recovery activity evident at the time of the survey.

Over 90% of the approximately 3,000 parcels surveyed were residential lots. Of the lots with buildings on them, 85% had a main structure that was single story, 14% had a structure with two stories, and 1% had a structure over two stories.

Heavy structural damage was primarily limited to the northwestern corner of the neighborhood closest to the levee breakage. Over 10% of the standing houses in this neighborhood showed signs of heavy structural damage. Residential buildings in all other neighborhoods besides the northern section of the Lower 9th had little or no signs of structural damage. About 5% of residences along the border of the Florida and Desire Area neighborhoods and parts of St. Roch also had heavy structural damage. Houses with this level of structural damage will not be cost-effective to repair. They will need to be demolished.

Vacant lots and structures needing demolition are concentrated almost exclusively in the northern section of the Lower 9th. The northern section of the Lower 9th has a high percentage of vacant lots, heavily damaged structures and structures with slab foundations. These lots are potential sites for future rebuilding. As such, this area is a potential site for extensive infill development and new large-scale development.

Homes with heavy flooding will require the gutting beyond 50% of the structure height. Over half of the interior walls, flooring, paint, and electrical wiring will need to be replaced. The cost to refurbish these structures will be extensive, ranging from $30,000-$50,000. More critically, structures with this level of flooding damage typically need to be elevated to new FEMA foundation height guidelines. This will add $15,000-$25,000 to the cost of repair.
new development

Areas that were severely affected by the floods (such as the northern section of the Lower 9th), as well as areas that are underutilized (e.g. the St. Claude commercial/retail/institutional corridor) are potential sites for new development, and mixed-use infill development.

The North-East Corner of the 9th Ward can be reconfigured as a residential neighborhood around a drainage system that protects it from future flood events, and uses the landscape for educational, recreational, social, and economic opportunities.

new housing

These examples of housing types exhibit flood-resistant adaptations of architecture typical to the Lower 9th Ward, as well as contemporary interpretations of shotgun and bungalow homes.

mixed-use infill development along St. Claude

Structures that have a commercial/retail use on the first floor and housing on the second floor create a mixture aimed at satisfying both housing and amenities needs. These structures will largely provide infill alternatives for parcels of land that are currently undeveloped or are occupied by decrepit or abandoned structures.

A Cornell urban design team made specific recommendations for how commercial/retail/institutional arteries, like St. Claude, could be developed, and it proposed a series of building designs that would be both affordable and respond to the specific requirements of the site (ground elevation, flood resilience, potential buyers, and already existent uses).
housing (2)

building recovery

Fourteen months after Hurricane Katrina, the teams also recorded evidence of recovery and re-occupancy in the Ninth Ward for all lots within the 165 surveyed blocks. The process of recovery was broken into five categories:

1. vacant lots
2. residential structures that remained uncleaned and ungutted
3. structures that had been cleaned and gutted
4. houses where the owners had begun repairs
5. reoccupied houses

The October 2006 survey indicates that owners had not cleaned or gutted their homes most often in the southern section of the Lower 9th, St. Claude and St. Roch. Owners had gutted a high percentage of structures in Holy Cross and the northern sections of St. Claude and St. Roch. Repairs and re-occupancy were evident between N. Clairborne and St. Claude Avenues, in St. Claude and St. Roch. Very little in-house flooding occurred in this area, so it is not surprising that this area has been the first to experience extensive recovery.

Some residents are living in FEMA trailers on their lots, even though their homes are not repaired. These people are strongly committed to rebuilding their neighborhoods. When inhabitants are combined with residents who have reoccupied their homes, a pattern of residency emerges. This is shown in the map below. At the time the teams surveyed these neighborhoods, residents were living in trailers or in their homes in over 25% of the lots in Planning District 7. They were also residing on 15% of the lots in Holy Cross and 12% of the southern section of the Lower 9th. The only area with very little occupancy was the northern section of the Lower 9th neighborhood.

While doing resident surveys we were struck by the resilience of residents in each of the four quadrants represented - not only in their overwhelming desire to move back to New Orleans (94% Lower Ninth, 100% Holy Cross, 88% St. Claude and 85% Bywater (see figure 6.13), but also in their commitment to rebuilding and returning to their pre-Katrina homes.
## Housing Opportunities

<table>
<thead>
<tr>
<th>Type</th>
<th>Cost</th>
<th>Area</th>
<th>Individual vs Planned Construction</th>
<th>Sustainable Design Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shotgun</td>
<td>$15,000 - $100,000</td>
<td>600-1400 sqft</td>
<td>3 bedroom</td>
<td>?</td>
</tr>
<tr>
<td>Creole</td>
<td>$15,000 - $100,000</td>
<td>600-1400 sqft</td>
<td>2 bedroom</td>
<td>?</td>
</tr>
<tr>
<td>FEMA (Federal Emergency Management Agency) Trailer</td>
<td>Free for 18 months, $75,000 delivery and installation</td>
<td>30-40 ft travel trailers</td>
<td>Mass Produced Prefabricated Trailers</td>
<td>x</td>
</tr>
<tr>
<td>Katrina Cottage</td>
<td>$45 - $55/sqft or $25,000 - $50,000 above</td>
<td>300 - 1200 sqft</td>
<td>1 - 2 bedroom</td>
<td>DIY Easy fast to build Floor plan + materials at Lowe's Takes 4.5 weeks</td>
</tr>
<tr>
<td>LIFT House by MIT</td>
<td>Natural Cost Sweat labor - volunteer</td>
<td>Flexible</td>
<td>Unskilled and semi-skilled volunteers</td>
<td>x</td>
</tr>
<tr>
<td>St Bernard Parish Charette</td>
<td>$60,000 - $160,000</td>
<td>?</td>
<td>Resolution to the State of Louisiana and to the Governor Blanco in support of the amendments to the Stafford Act proposed by the Louisiana Recovery Authority charettes, permitting the Katrina Cottage as a similar permanent housing solution as an alternate standard for FEMA trailers</td>
<td>x</td>
</tr>
<tr>
<td>Biloxi Home Program</td>
<td>up to $110,000</td>
<td>12 Designs max: 1600 sqft</td>
<td>Individual</td>
<td>Depends on individual proposal</td>
</tr>
<tr>
<td>High Density on High Ground Competition</td>
<td>?</td>
<td>Prefabricated units: 160 units</td>
<td>Filters rainwater for plants</td>
<td>?</td>
</tr>
<tr>
<td>Sustainable Design Competition for New Orleans</td>
<td>Low can DIY</td>
<td>?</td>
<td>1.8 acres, 15 living unit (12 multi-family and 6 single family) and a community center</td>
<td>Rain water collection and recycle, no electrical bill</td>
</tr>
</tbody>
</table>

### Notes:
- **Shotgun** and **Creole** are pre-Katrina options.
- **FEMA Trailer** is a temporary solution.
- **Katrina Cottage** and **LIFT House** are ready to build now.
- **St Bernard Parish Charette** and **Biloxi Home Program** are upcoming initiatives.
- **High Density on High Ground Competition** and **Sustainable Design Competition for New Orleans** are competitions for innovative housing solutions.
<table>
<thead>
<tr>
<th>Potential for Future Extension</th>
<th>flood Resistance</th>
<th>Hurricane Resistance</th>
<th>Repairability</th>
<th>Typical Floor Plan</th>
<th>Urban Typology</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td>pending</td>
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<td>X</td>
<td></td>
<td></td>
<td>pending</td>
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<tr>
<td>Tenta Housing only Max 18 months</td>
<td>X</td>
<td></td>
<td>Repair Centre</td>
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<td></td>
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<td>withstand at least 140 mph winds (meet most hurricane code) and withstand rain</td>
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<td>?</td>
<td>generic concept</td>
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<td>8 - 10 ft above ground</td>
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<td></td>
<td></td>
<td>Raised land or house 6 - 8 ft above ground</td>
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<td>6' - 12' above ground</td>
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<td></td>
<td></td>
<td>Raised building Use lower level for garden</td>
<td></td>
<td>?</td>
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</tbody>
</table>

14
Convenient access to basic consumer goods is an important requirement for any healthy residential area. The stability of a residential area’s nearby commercial corridor is viewed by many would-be investors as a leading indicator of neighborhood stability. In a post-disaster context, the recovery of local commercial corridors offers returning residents access to goods, services, and jobs, and encourages further investments in the area.

A total of 364 businesses were surveyed in the 7th district. About 54% of these businesses have reopened, 5% are in the process of being renovated, and 38% are closed, while the status of 3% of the businesses is unknown. Three-fourths of the district’s businesses have intact facades, and 81% have signage that is functional.

Restaurants and bars are by far the most common business type throughout the district. Almost 25% of the total businesses surveyed — and of the open businesses — are restaurants or bars. Other local businesses include several grocery stores, salons and beauty shops, auto repair shops, and offices throughout the district. However, many of these businesses remain closed.

Whereas 80% of the businesses in the Marigny neighborhood appear to have successfully re-opened, fewer than half of the businesses located along the St. Claude and Claiborne corridors and in the Desire and St. Roch (north of Florida Avenue) areas have done so. In fact, only eight of the neighborhood’s existing businesses were back in operation in the Desire area.

Businesses have been slowly returning to the 8th district. In October of 2006, only seven (11.9%) of the district’s fifty-nine previously-operating business establishments were open, and 3 (5.1%) appeared to be under active renovation, while 49 (83%) remained shuttered.

In mid-October of 2006, nearly 60% of the commercial buildings within the district appeared to have sustained significant damage to their facades, while 39% of the establishments formerly operating from these buildings had severely damaged or missing signage. Approximately 30% of the district’s vacant commercial buildings appeared to have experienced minimal structural damage and may be ready for immediate occupancy if the demand for this space should develop.
economic opportunities

Apart from developing a series of commercial corridors (such as St. Claude and Claiborne), there are opportunities to bank on the available work-force in the 9th Ward, as well as on existing needs. In particular, we propose the development of a modular housing industry, in tandem with a YouthBuild program, and the development of a flea market.

A modular housing factory in the Ninth ward would offer well-paid employment opportunities in close proximity to an available workforce. This local industry would accelerate the neighborhood reconstruction process, generating infill housing that could be easily adapted for sites near the factory.

The adjacent figure maps the areas with industrial zoning in the Ninth Ward. Also, the neighborhood’s proximity to the Mississippi River and a nearby harbor, as well as an extensive railway system, could revitalize this underutilized industrial area into an important regional and national export zone. A modular housing factory could serve its immediate area, and potentially act as a catalyst for housing production in the entire Gulf Coast.

Giving the residents of the 9th Ward an outlet for small entrepreneurial opportunities could spur local economic synergies, and create venues for people to meet and greet. A flea market requires minimal public investments and could potentially provide a series of direct and fringe benefits that would make living in these districts more desirable. Especially as residents rebuild their neighbourhood, such a flea market could provide as a central place for the exchange of construction materials and services, as well as household goods.

The market could provide an important site for distributing information regarding health, education, welfare, housing, and job training services. The lead agency on such a project could be the city itself or a local NGO. A flea market is relatively cheap to organize, and charging sellers a small fee would provide money to maintain the market.

YouthBuild grant

The physical rebuilding process in the Ninth Ward stimulates economic and workforce development, and an emphasis must be placed on developing local skills in the building trades. Community empowerment and swift redevelopment depend on programs that connect residents to careers in the building trades, which they can focus on the recovery of housing and business in their own communities. Such programs should, if possible, be developed around the sites of existing or proposed housing development facilities.
municipal services

**public transit**

Public transportation services in New Orleans before Katrina were fairly good, with buses and light rail cars spanning most of the city. Currently, only 49% of all public transportation routes, and only 17% of bus routes are operational.

**education**

In December 2006, only 49% of New Orleans former public schools were open (as opposed to 74% at the regional level). In the 9th Ward, only three public schools reopened.

**safety**

There is only one police sub-station in the Upper Ninth Ward, and none in the Lower Ninth Ward. While members of the New Orleans Police Department and the National Guard regularly drive through the neighborhood, residents believe they made little effort to develop the kind of relationships with local residents needed to form an effective community-based crime prevention program. Fire stations appear to be appropriately located throughout the neighborhood in order to assure reasonable emergency response times.

**resident survey**

When queried about the types of services residents needed to return to their neighborhood, survey results indicate that residents placed a high priority on the need for schools, medical facilities, public transportation, community and recreational facilities, parks and playgrounds, affordable housing and grocery stores.
One team conducted a two-day survey of the 22 local parks and playgrounds in the 9th Ward. They documented whether the parks had been damaged, their current status and use. While neutral ground on many New Orleans Avenues is also often used for recreation, we did not survey these green spaces.

The adjacent map shows that the parks and playgrounds surveyed are within a 5 minute walking distance from many neighborhoods. Residents in Holy Cross and between N. Claiborne and St. Claude Avenues in the St. Claude neighborhood, however, did not have easy access to parks and playgrounds even before Hurricane Katrina.

Over three-quarters of 9th Wards 22 parks showed signs of damage from Hurricane Katrina in October 2006. A third of the parks were open and used as parks. The remaining two-thirds of the parks were un maintained or used for post-storm recovery. Five were used as FEMA trailer parks, another as a construction staging area, and a seventh as a gated parking lot.
new open space proposals

The need for open space, as well as the need to bridge the transition between neighborhoods, and between neighborhoods and working areas prompted the proposal of two parks: one along the Desire industrial area, and one along the railway-line separating the Upper 9th from the rest of the city.

Desire Park will become an extensive natural system that weaves together the neighborhood’s industrial past, new park spaces, and rebounding native habitats while providing links to the greater New Orleans park system through dedicated bike routes, nodes, and improved roadway connections.

The Railway Park will act both as a buffer between the railway lines and the adjacent neighborhoods, and as a connector between the Upper 9th and St. Roch Neighborhoods. Existing bridges will be improved with separate pedestrian/bike lanes, and a new pedestrian bridge is proposed for the northern part of the site. The bridge will connect with a new community park built on a vegetative berm. This berm will also serve as a noise and flood buffer.

Residents cite the lack of safe spaces for their children as one of their top concerns: several respondents to our surveys cited playgrounds for kids as the most important thing they would like to see incorporated in a recovery plan. A comprehensive system of playgrounds, often physically linked to community institutions like schools can help prevent criminal activity from taking control of single, unregulated playgrounds. Neighborhood participation in both the design and construction of these playgrounds increase both the quality of community stewardship over these new public spaces.