

Unpaving the City Surface



A study suggests that in many places, parking could give way to parks

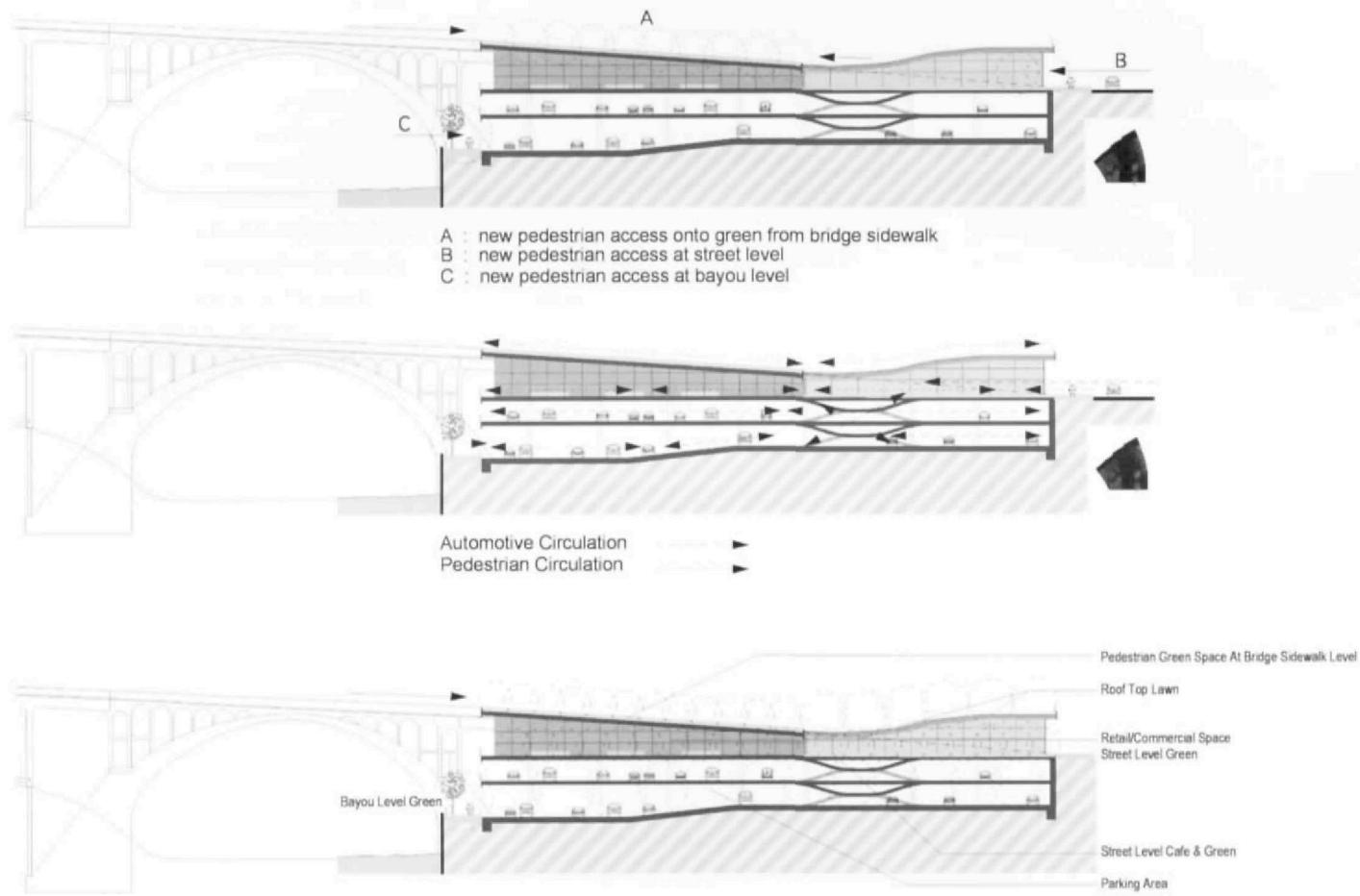


Drawings, sections, and maps courtesy Marcus Farr

BY MARCUS FARR

DISCOVERY GREEN, the new 13-plus acre downtown park being built in front of the George R. Brown Convention Center, has generated considerable attention in both the press and among the public in recent months. Much of that attention has had to do with the park's prominent location, and in the unusually large—for Houston, at least—amount of money raised for its construction. But the park might well deserve attention for another reason: It could be a model for similar parks throughout downtown, helping turn an urban center notable for its lack of public green space into something more attractively lush.

That model hinges on what was actually a late addition to the project, an underground garage that replaces the parking spaces lost to Discovery Green itself. Since it's unlikely that Houston is going to abandon the car anytime soon, regardless of how well light rail or other mass transit might do, striking an accommodation between park land and parking spaces is a necessity if downtown is to expand its public green space, and especially if it's going to expand as Discovery Green did, by taking over acreage now devoted to the existing surface lots that dot Houston's urban center.



Opposite Page: Graphics from *Houston (Green) Space City* showing how a paved farm, top, can be transformed into a green surface, bottom.
Left: Sections of a suggested park over a parking lot next to the University of Houston Downtown, from the *Houston (Green) Space City* project.
Bottom Right: A map of downtown Houston, showing location of existing parking lots and parking structures (areas in black), and the parks possibilities they offer.

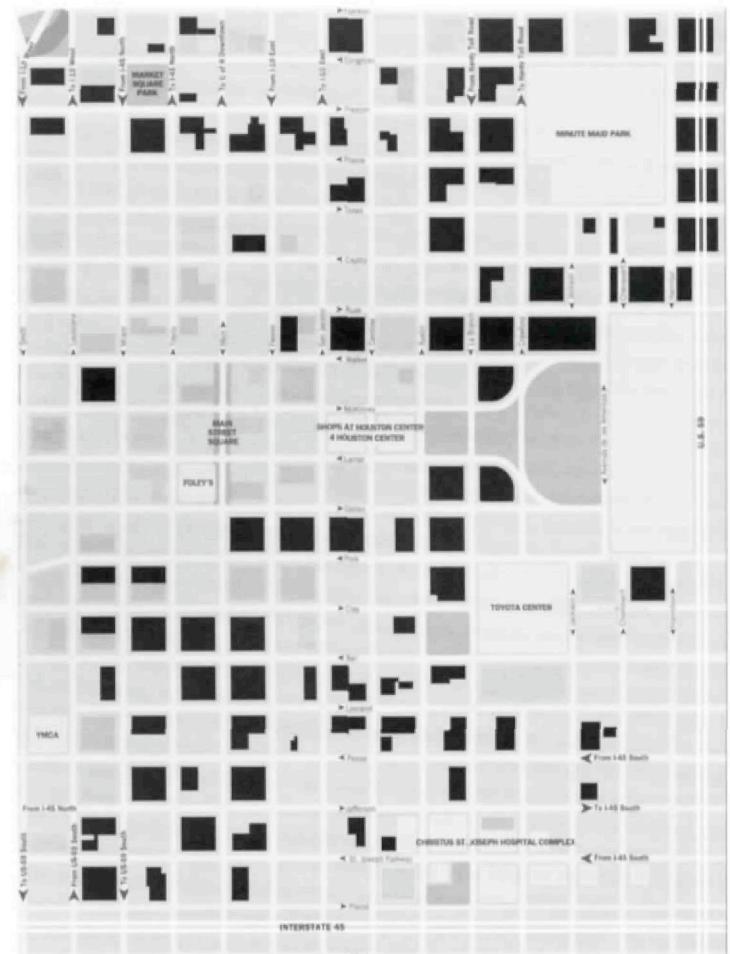
This idea is something I began looking into for a 2004 Initiatives for Houston Project titled *Houston: (Green) Space City*. The project, funded by the Rice Design Alliance, is an architectural design and accompanying research document studying the places downtown where "Park/parking" design can be introduced as a catalyst for the betterment of the city and our interaction with it. The study suggests that there are a number of current parking structures and surface lots that could be made into effective urban parks. Using landscape urbanism, architectural renovation, and environmental installation, a hybrid condition can be established where the widespread formation of paved parking lots can be successfully blurred with the public and pedestrian realm. This union has the potential to transform city spaces deadened by the automobile into vibrant, thriving promenades and public domains.

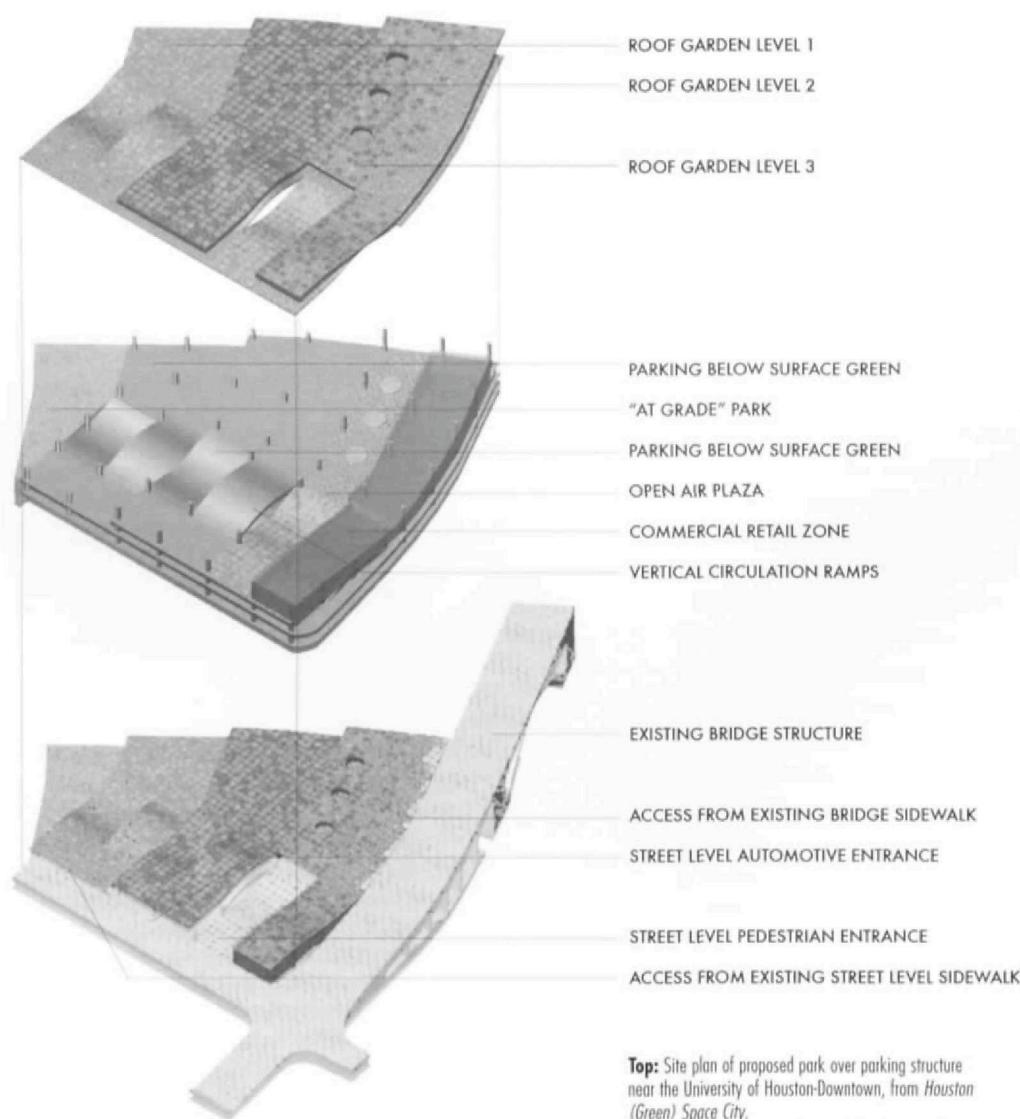
Of course, placing parks or other public gathering spots over parking garages is hardly new. Jones Plaza and Tranquillity Park have already done that in Houston, with mixed success. But in other cities we have begun to see an emerging symbiotic relationship between urban parks, parking garages, and the

automobile. In Dallas, The Office of James Burnett is designing an urban park over the Woodall Rogers Freeway that will link the city's expanding arts district. Grant Park and Millennium Park in Chicago, Mellon Park in Pittsburgh, the Boston Common, and Market Square in Alexandria, Virginia, all have successful "garage beneath urban park" situations.

One of the most successful case studies is Post Office Square, where the largest parking garage in Boston exists beneath 1.7 acres of accessible and well-used downtown green space. This is a particularly interesting case study, given that prior to the construction of Post Office Square the site contained only a dingy five-story garage structure, one that was avoided by pedestrians and contributed to an area void of outdoor activity, even though it was in the heart of the financial district.

Houston is at a point where a study of downtown parking lots with the potential for rebirth as urban green spaces needs to be done. It would be an informational tool that could help inform the revitalization now underway. In American cities, urban infrastructure and useable pedestrian green spaces typically exist as separate entities. Conventionally,





Top: Site plan of proposed park over parking structure near the University of Houston-Downtown, from *Houston (Green) Space City*.
Bottom: Exploded view of proposed park over parking structure.

these systems are not designed in unison but rather as separate typologies with different functions. It's a strategy that seemed to make sense when using a traditional mindset that had each entity being designed at different times in a city's life, but it's an unfortunate strategy when faced with rapid urban growth.

It would be better to move past a conventional, utilitarian strategy and look at both infrastructure and green space in a way that could integrate Houston's aesthetic and functional needs. We need to view our city in a way that empowers new social uses and allows for emergent architectural forms that can heal and engage the urban fabric.

Houston is no different than most American cities undergoing urban revitalization. What we experience in our day-to-day lives consists of urban fields where several infrastructural systems come together. Our experiences are very much a part of the residual space left in the wake of these collisions, often in the form of large expanses of concrete that create heat sinks and deny aesthetic beauty. The relationship between these sprawling lots and the urban landscape offers a window of exploration, and the potential to learn something new about how design can create cohesion in fragmented areas.

In a study a few years back, *Sustainlane.com* found Houston to be the least sustainable of the nation's 25 largest urban areas. The study gathered data in 12 categories, among them green space, water, air quality, transportation, and recycling. Houston ranked close to last in every aspect. Categories where Houston ranked poorly included parkland per city acre and heat islands—the latter an especially important category for Houston because of the intense heat it experiences for up to half the year. The term heat island refers to urban air and surface temperatures that are higher than nearby rural areas. Many U.S. cities and suburbs have air temperatures up to 10 degrees Fahrenheit warmer than the surrounding natural landscape. In Houston, the heat island temperatures can reach 149 degrees Fahrenheit. This can be lowered by replacing heat-absorbing surfaces with plants, groundcovers, small trees, and with green roofs—and by reducing the amount of surface parking lots.

While putting together the *Houston: (Green) Space City* study, I attempted to identify locations within the downtown area where infrastructure is contributing to the division of the urban fabric. One place I found a surplus of surface lots was at the northern edge of downtown, around the areas of Main Street, Travis, and Commerce. These lots occupy an area between an urban bayou used for flooding and water runoff, University of Houston-Downtown academic buildings, and the northern downtown business and theater

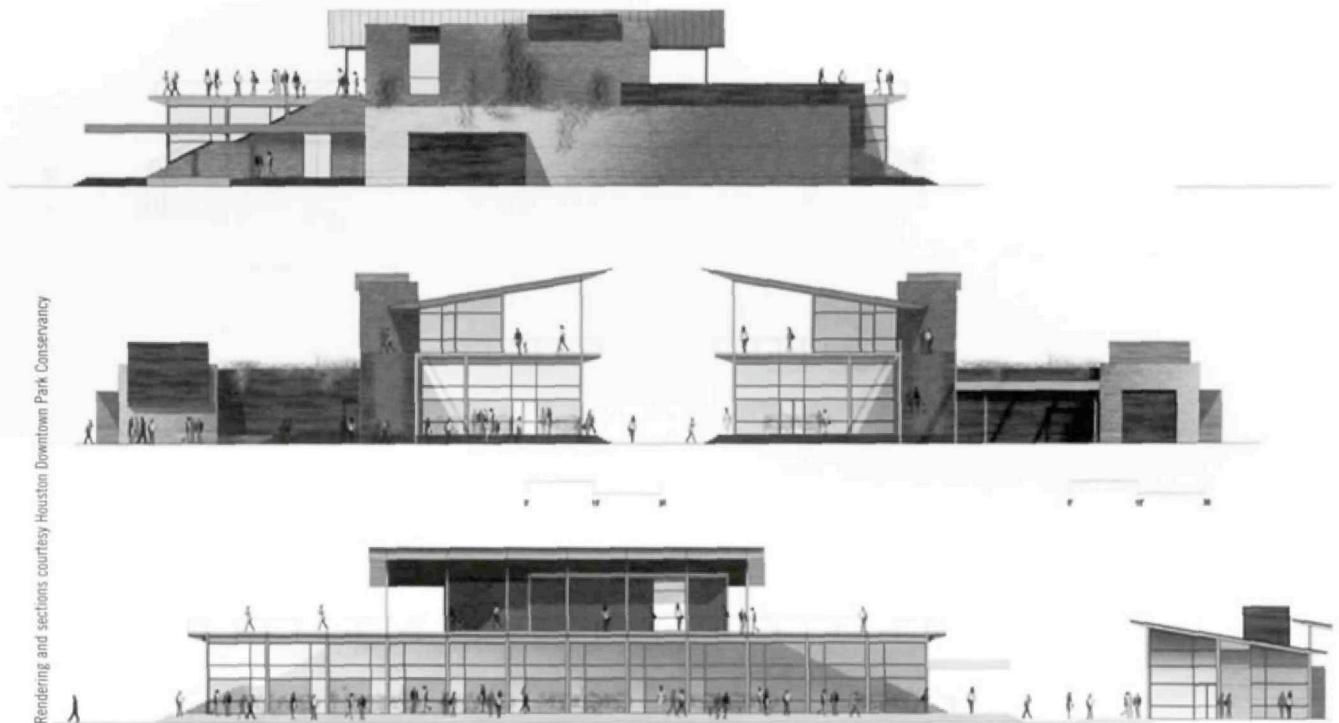
district. These lots are disparate and scattered, and provide little order or lack of cohesion at the pedestrian scale. While these lots are in frequent use by commuters, they remain aesthetically undesirable and ultimately create a poor environment for pedestrians.

In my study I acknowledged the potential of the area, which is kept active day and night by students and professionals. The usage patterns of the area, though, suggest that when moving from point A to point B, people typically skirt the massive void created by the surface parking, walking only along the perimeter sidewalks. The study suggests that if the concrete void were absorbed by a hybrid structure in which the existing parking is moved beneath a open, walkable green that is accessible from all points along the sidewalk, then a healing of the city and the urban public would occur almost immediately.

The design absorbs the surface lot from sidewalk to sidewalk, bayou to bridge, and morphs upward to achieve unison with the Main Street Bridge sidewalk as it moves across the Bayou. This allows for a park that is accessible from any point along its perimeter, even as the existing sidewalk becomes a bridge over the bayou. By absorbing these lots under an anamorphic green space, the site becomes a large-scale urban park engaged and linkable from all pedestrian trajectories. (See illustrations.) The heat island would now be a green island. Besides creating a condition of scale and beauty at the pedestrian level, the green space would contribute to heat island reduction by replacing heat-absorbing surfaces with plants, shrubs, and small trees that cool the air. The urban green would be cooler than a rooftop constructed from traditional heat-absorbing materials.

The hybrid condition of "green" park and "car" park allows for the metropolitan fabric to accommodate the aesthetic needs of the city without sacrificing needed cohesion. *Houston: (Green) Space City* was intended in part to be a suggestion of what could be done in downtown Houston. Discovery Green is, in a much more practical and emphatic way, providing a similar suggestion. As Discovery Green promises to show, going from parking to parks may not be easy, and may not be cheap, but it isn't impossible. The possibilities are clearly there. The question is whether there's the vision, and the will, to make those possibilities into realities. ■

More information about the *Houston: (Green) Space City* study can be found at www.marcusfarr.com/index_initiatives.swf.



Rendering and sections courtesy Houston Downtown Park Conservancy

Top: Side, front, and rear views of formal restaurant planned for Discovery Green.
Right: Rendering of what the view from the restaurant's terrace into the park would be like.



Park Building

Discovery Green has been touted as distinguishing itself from other parks in downtown Houston through its programming, which is designed to keep the area filled with activity that will draw in passers-by. While a good portion of that activity will be generated by the park's water features and landscaping, more than a little will be dependent on the park's built structures, which include two restaurants, one a full-scale, white-table-cloth facility and the other a smaller, casual dining operation, and a park administration building that will contain a conference room along with offices and storage areas.

Indeed, one of the main ideas driving Discovery Green was that it be not just a green space in the city, but a structured environment with substantial built elements. According to Lawrence Speck, a principal in PageSoutherlandPage and the lead designer on the park's buildings, the concept was to "create a highly programmed, well conceived, complementary set of activities, just like you would have in a building."

"It's hard for me to see the actual buildings as separate from the outdoor spaces," Speck adds. "And even the buildings incorporate enormous amounts

of outdoor space. There's probably as much built outdoor space in the buildings as there is air-conditioned space. Because we're very interested in this indoor/outdoor connection, we have a lot of glass. We want people to feel like they're in the park, and not in a building separated from the park. So a lot of the design is about dissolving that architectural boundary."

Another element of the design is the creation of strong, perpendicular forms that will draw visitors off the Crawford Promenade, a walkway that will replace the closed section of Crawford Street and act as the new park's spine. Originally there was thought of having the park buildings face the promenade, but it was quickly realized that doing so would focus too much attention on that one element, to the detriment of the rest of the park. As a result, the orientation of the buildings was rotated 90 degrees so that their lines would pull people off the promenade and into the rest of Discovery Green.

Those lines are emphasized through the use of a monopitched roof on each of the buildings. "Our idea was to tie all the buildings together through material and general vocabulary and attitude," says Speck. "And the three buildings really

do have quite a similar vocabulary. They're basically made of a sloped roof form that is sloping down on the south side and up on the north side, to let us bring in north light."

Construction elements include a coastal clay brick from Louisiana that is similar to the brick found in many of Houston's earliest buildings. The south sides of the buildings will contain the brick volume, which will be used in a textural fashion with a strong, horizontal line that will emphasize the lines of the roofs.

"One tough thing about doing buildings in a park is that you don't have any backs," Speck notes. "Every side will be visible, so every side has to be able to attract people in. We're really conscious of that, of how the building has to work as part of the greater whole of the park, and not just on its own. It means a real collaboration with the landscape architects and the rest, which is something you don't always have."

If the park is going to succeed, Speck notes, the buildings have to work. And if the buildings are going to work, the park has to succeed. It can be a real challenge, he says, but when it comes together it's worth it. — Mitchell J. Shields