



Light Rail and the Future of Houston

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From New York to London to Tokyo, nearly every great city depends on some form of rail transportation to move substantial portions of its population to and from work. No one in Mexico City or Paris would take seriously the idea of relying entirely on buses and automobiles to move millions through dense urban areas. In Japan, the world's largest automobile producer, where I spent seven

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years as a magazine correspondent, almost no city dweller owns an automobile. Subways, railroads, and light-rail lines are just too convenient. Besides, there's no place to park.

But Houston is a city of a very different sort. Even more dispersed and fragmented than Los Angeles, Houston is the quintessential conglomeration of freeways and shopping malls. The automobile created the Houston we know, not just by moving people to and from work, but by determining the style and substance of economic growth and social life. Here, people don't just commute in cars, they live, shop, dine, and entertain themselves almost only where cars allow them to do so. In this city of self-reliant, independent drivers, those few who don't own cars are a disadvantaged minority, usually poor, often black or Hispanic.

Yet Houstonians consistently rate traffic and mobility as the single biggest problem facing their city. Getting to and from work, at least at rush hour, often takes on the quality of an absurd form of modern torture. It's something of a paradox, therefore, that intense debate rages over the Metropolitan Transit Authority's latest plan to relieve the freeway mess.

Four years after the MTA was soundly defeated in its bid to build a heavy rail system, the Metro board of directors is considering bringing to the voters a far

less ambitious – but no less controversial – scheme to build a light rail system. Far less costly than heavy rail, such a system would involve rail cars powered by overhead wires, with their own rights-of-way easily passed over by automobiles at intersections. (Unlike heavy rail, it will require few grade separations.)

For all the uproar about its light rail proposal, the System Connector Plan that Metro may bring to a vote is a modest one by international standards. It consists of 18.2 miles of light rail and other Phase II and III improvements (see map). Metro is not aiming to transform Houston into Chicago or Tokyo or West Berlin; it only hopes to supplement bus routes with light rail, and additional Transitways (high-speed freeway lanes) taking pressure off overworked freeways between major employment centers. Anything more ambitious would be nonsensical in a metropolitan area of 1,940 square miles – nearly half the size of Lebanon.

Even if the plan works to perfection, the overwhelming majority of Houstonians will continue to drive to work and to the malls and strip centers where they purchase food, clothing, and recreation. "We have no grandiose ideas about eliminating the automobile," says Alan F. Kiepper, Metro's general manager. "This is not a rail system but a bus system. The 1,900 miles of surface bus lines will continue to be the chief means of public transit. They are our first priority. Only 1 percent of the roadways would be light rail, but that 1 percent is critical." At rush hour, four light-rail cars run by one operator can transport the equivalent of 12 fully loaded buses.

The ultimate cost of Phase II improvements would be about \$950 million – including \$570 million for light rail. That sounds like a lot, but it adds up to less than one B-1 bomber.

Despite the modesty of its proposal, Metro faces a diverse coalition of opposition forces determined to depict the program as an overambitious waste of public funds. Metro's opposition argues

that the agency is squandering public funds, running up a daily deficit of \$400,000 while it provides only 3 percent of the daily volume of commuting trips.

Opponents claim the new plans would actually cost well over \$1 billion, not \$950 million. That's a staggering sum they say would drag down Houston's economic prospects. As a result, the argument runs, Metro would be forced to cut bus routes and services as the deficits mounted.

To bolster such charges, opponents cite the experience of Miami and Detroit, where enormous cost overruns and overly optimistic projections about new rail schemes eventually forced authorities to cut bus service. "We now pay \$200 per year per family for Metro services," complains Jon McEwen of the Greater Houston Tax Coalition. If the light rail plan were approved, McEwen says, "Metro will spend \$6,500 per person over the next 23 years," or almost \$3,000 a head each year. Besides, argues self-appointed Metro critic and vocal opponent Barry Klein, "even the poor can afford an automobile" in Houston.

Another way opponents aim to stop Metro is to head it off at the pass by slicing in half the 1 percent sales tax taxpayers granted the agency in the 1978 referendum. The Texas legislature recently passed a bill that allows, during the next two-year period, a referendum on the issue if a mere 42,000 voters support such a petition.

Such a rollback would make public approval of the light rail plan (in another vote, possibly on the same ballot) a moot point. Halving the sales tax would deprive Metro of half its \$160 million dollars in 1987 tax revenues, and force Metro to cut drastically its current levels of service. Already the mere threat of a referendum on the sales tax has endangered Metro's chances of floating about \$500 to \$600 million in bonds it would need to fund Phase II, if it is approved.

Clearly, Metro's chances are imperiled by



As Cite goes to press, the Metro Board of Directors has decided to postpone a public referendum on the transit plan.

Left and right: Metro's bus maintenance facility at 5700 Eastex Freeway (US Highway 59)



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the economic recession that still grips Houston. Many Houstonians who don't use public transit are facing financial difficulties they never anticipated during better times. Metro is a convenient symbol for many who want to vent their financial frustrations. Although transportation was clearly the most significant local issue when Metro began its work eight years ago, jobs and economic development have now replaced it in the minds of many commuters.

A similar concern grips the state government in Austin, which recently had to pass a large tax increase to alleviate a huge budget deficit. State legislators are concerned that Metro is not accountable to the state government for the way in which it spends its public funds, even though it was the state that authorized Metro's charter in 1978.

Opposition leaders no longer pay serious attention to the compelling economic arguments Metro uses to support its plans. "The word 'rail' evinces very strong passions among some people in Houston," Metro's Kiepper argues. "Some people go into orbit. They say it costs too much. But our analysis clearly shows that by making this light rail, we can substantially reduce our operating costs in the future. In time, this will overcome initial capital costs."

Virtually every major urban transit system in the world runs up substantial deficits, Metro's supporters maintain. That includes the Japanese systems, which benefit from the enormous density of the cities they serve. Public transit is an essential service that is the hallmark of a great city, not a luxury to be compromised when highway congestion temporarily improves. Metro is a public agency that is not in business to make

money, but to build an infrastructure every great city needs. And, Metro must serve not only commuters, but also those seemingly disenfranchised "transit dependents."

Moreover, civic leaders, actively courting business to move to Houston, still battle the widespread perception that the city's traffic is among the worst in the world. That perception, says one Metro staffer, is a significant reason Atlanta, with its more sophisticated transit system, won the Democrats' next national convention. That was a major blow to Houston's economic development efforts.

Ironically, even though the recession has eased freeway congestion a bit, this could well be the best of all possible times to expand with an eye to the long-term future. The Urban Mass Transportation Administration (UMTA) is poised to give Metro several hundred million dollars to build much of the new system - but probably only if the 1 percent tax base remains intact. Next year's UMTA budget calls for a 58 percent cut in funds, so this could be Houston's best chance to attract federal grants.

The recession also means that land and construction costs are more reasonable than they've been for years - or will be, when the city rebounds. "Private construction is at a low ebb and the community needs economic stimulation," Kiepper maintains. "It is the absolute perfect time to make public investments in infrastructure for the next spurt of growth. Everyone knows Houston will rebound on the growth track."

In five years, land and labor will be far costlier and the federal funds may not be there at all. By that time, Houston's freeways could well be as snarled as they

were during the early 1980s. Besides, Phase II would generate an estimated 60,000 people/years of employment. Those people who view tax relief as the simplest route to economic revival don't understand the economic impact of Keynesian pump priming.

It's strange that an agency that has done so much, so fast, to improve service, has done so little, so slowly, to win the public trust. In the six years since Alan Kiepper became head of Metro, the MTA has used its tax base to turn one of the world's

only 2.4 in 1987. The standard for a good system is about 5.5. In May 1987, APTA judged Metro the safest major transit system in the United States.

- On-time performance (not more than five minutes late, but *not* early) improved from 39 percent on-time (and 23 percent early) in 1981 to 97.6 percent in 1987, one of the highest figures in the nation.
- Cost-per-revenue mile declined by over 30 percent in the past five years, and 10 percent alone in the last year.

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worst bus systems into, by all accounts and standards, one of the best. Even Kiepper's critics agree with him when he recalls that in 1982, "public transport was absolutely the pits. It was the most profligate, least reliable, dirtiest, most uncomfortable." Yet only a few years later, in the fall of 1985, the Houston system was judged "outstanding" by the American Public Transit Association.

That verdict, and later praise from the APTA, was based on undeniable progress in the key statistical indicators by which public transit systems are evaluated. Among the most significant:

- Average miles between unscheduled road service improved from a terrible 513 in 1981 to 11,500 in May 1987. The standard for a good system is 2,250 miles.
- The number of accidents per 100,000 miles has declined from 9.2 in 1981 to

Although Metro continues to serve a small minority of Houston's population, its passenger base has expanded more rapidly than that of any city in the United States - from only 47 million passenger trips in 1982 to about 74 million this year. Kiepper acknowledges that only 3 percent of all Houston trips take place in a Metro bus, but he argues that between 6 to 8 percent of all work trips take place on a bus as well as about 20 percent of all work trips to downtown. That has helped relieve traffic congestion on major thoroughfares, but it won't be enough during the next economic recovery. Metro hopes that the new improvements will enable it eventually to capture about 16 percent of all work trips, much of that from expanded Transitways.

Lamentably, all such projections are merely computerized guesses, easily punctured by critics who cite the errors in some of Metro's earlier projections. "The opposition wants proof there will be enough ridership in the next 20 years," laments an industrialist who supports Metro. "But no one can predict ridership because no one can predict the future." If one thing is certain, he insists, it's that "Houston can't be a great city without a great transportation system."

The two sides in this debate not only disagree on the facts, but on fundamental values. What the opposition values most are lower taxes, lower expenditures, and smaller operating deficits.

But at Metro headquarters, board members recognize that far larger issues are at stake. One of these is what board members, at their June meeting, called "encouraging orderly economic growth." Houston's highly irrational, unplanned development has put an enormous strain on government by forcing the extension of costly water, sewer, police, and other services over a vast area that is often sparsely populated. "There's lots of skip

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Light Rail System Connector Plan



The proposed plan would connect Houston's business and institutional centers with 18.2 miles of light rail. The plan includes transit centers and improvements to the existing bus system.

these buildings, whether it was achieved by complex configurations or the seductive effect of glazed openings. The graying of Do-ville, Barnstone's surreal chromatic unification of the bungalows and apartment houses assembled by Mr. and Mrs. de Menil in the vicinity of the Rothko Chapel (1974), was a telling example of his instinct for making memorable places. He achieved this not by architectural exhibitionism but by sly subtlety, subverting the conventionality of an ordinary 1920s neighborhood with nothing more than a coat of paint, imposing an obvious visual order that paradoxically revealed the wide range of individual variations present.

Between 1974 and 1979 Barnstone produced another book, *The Architecture of John F. Staub, Houston and the South*, on the work of Houston's pre-eminent eclectic architect. Its publication coincided with Barnstone's decision to declare himself a postmodernist. In arriving at this decision he was influenced by the example of Philip Johnson. It was not the intrinsic merit of Johnson's work that appealed to Barnstone, but his conceptual audacity: Johnson ventured new experiments rather than reworking old formulas. Beginning with alterations to the O'Connor House (1981), Barnstone's postmodern series included the Bramlett House (1982), the De Saligny condominium apartments in Austin (1983, with Robert T. Jackson), the Hoosiere House (1983), and the opulent, Mediterranean style Peterkin House (1983). Barnstone's eclectic detail was not especially satisfactory. It tended to be improvised in design and it was invariably executed in stucco, giving even the most expensive houses a sketchy, makeshift aspect. One had to experience the interiors to be reassured that Barnstone had not sacrificed his abilities in anxious conformance to fashion. Invariably they were "Pompeian," his term for the sensuous manipulation of relationships between inside and outside, of light, space, planting, and water: high, white, serenely lit rooms, expanding outward through glass to appropriate the out-of-doors, inducing that haptic sensation, as one moved through them, of what he called the "divine float."

The last buildings that Barnstone's office produced indicate that he had begun to draw away from this not too successful foray into eclecticism. It was perhaps through contact with younger Houston architects and locally built works that rejected the allure of postmodern eclecticism that Barnstone reconsidered his own direction. He was intrigued alike by the austere, elemental buildings of Carlos Jiménez and the abstruse, almost mystical complexity of Ben Nicholson's exploratory work. His final building project, the Schlumberger Austin Systems Center in Austin (1987, with Robert T. Jackson), was his homage to Mark Mack and Andrew Batey's Holt House in Corpus Christi. Design development and production of the Austin Systems Center began just before the outbreak of Barnstone's manic episode, which complicated the execution of the design, as is apparent externally. But inside the Schlumberger Wiggle Wall was reintroduced as part of a continuous circuit of indoor and outdoor promenades, counterbalancing in its horizontal and vertical expansiveness the intimacy of individual offices. Both kinds of spaces are contoured to the

idiosyncrasies of the site, so that human artifice complements and underscores natural conditions, as it does also with the filtering of skylight into the "Broad Way," Barnstone's name for the internal promenade.

In the course of his 39-year career Howard Barnstone demonstrated an ability to make spaces that seemed peculiarly receptive to human occupation, and buildings that occupied their sites with authority rather than arrogance. Like many American architects trained in the 1940s, he seemed to conceive of himself as the young rebel, contemptuous of orthodoxy, eager to demonstrate the superiority of personal vision to conventional wisdom. He rebelled against the orthodoxy of his youth by engaging the scandalous proposition that architecture came and went in styles. His work seemed to do this. But not at the expense of failing to develop continuity and an internal coherence rooted in the experience of occupying architecture.

Contempt for common sense and received opinion compelled Barnstone to operate at a level of extreme subjectivity. He cultivated an insightful sense of space, light, and proportion, an instinctive feel for place that he could reproduce in buildings. He almost never spoke directly about these abilities, preferring to discuss his work in terms of style, personalities, or social circumstances. "The magic and success of architecture in our time will come from the genius of the architect," a statement made to Nory Miller in an interview published in 1977, was about as close as he came to articulating what, in his experience, was essential for making great buildings.⁶ In trusting his own genius, Barnstone defined a personal sensibility (what John Kaliski aptly called his "nutty magic") that was sufficiently profound and intense to involve all who were around him.

Houston without Howard Barnstone seems as inconceivable as Houston without the Shamrock Hotel. Each embodied a provocation too outrageous simply to cease to exist. Yet such a state of affairs has come to pass. It is odd how vulnerable a large city can seem to the death of a single person. Yet Houston, especially Houston architecture, is diminished without Howard Barnstone. He takes from it a spirit of free inquiry, of courageous individuality, and of mischievous delight that were always too rare. He leaves in his place a body of work that perpetuates his vision of how life ought to be lived, a vision that these buildings will enable us to share as long as they remain. ■

Notes

- 1 Howard Barnstone, "Obit: John de Menil," *Architecture Plus*, 1 (August 1973), p. 71.
- 2 Reyner Banham, "In the Neighborhood of Art," *Art in America*, 75 (June 1987), p. 126.
- 3 Colin Rowe, "Neo-Classicism and Modern Architecture I," *The Mathematics of the Ideal Villa and Other Essays*, Cambridge: The MIT Press, 1976, pp. 120-134.
- 4 Henry-Russell Hitchcock, "Introduction" to exhibition catalogue, *Ten Years of Houston Architecture*, Houston: Contemporary Arts Museum, 1959.
- 5 Esther McCoy, "Young Architects in the United States: 1963," *Zodiac 13*, 1964, pp. 167, 186.
- 6 Nory Miller, "Lone Stars - Howard Barnstone and Karl Kamrath," *Inland Architect*, 21 (July 1977), p. 16.



Bell House, 1968, Howard Barnstone and Eugene Aubry, architects

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development in Houston [and] scattered growth is extremely expensive," explains Metro's Kiepper. Light rail would increase densities in areas already served by Metro and entice developers to redevelop neglected areas - usually closer to the city center - that are already well-served by essential services.

If Metro wins its battles, Houston, the sprawling, undisciplined adolescent, will gradually emerge a little denser, a little less chaotic, a little less dependent on the automobile and the shopping mall. As more people use trains to commute, the Thai restaurant that now finds itself incongruously positioned between a garage and a dry cleaner's shop, might wind up moving next to other restaurants near a rail station. That ugly empty lot so close to the center of town, now neglected in favor of a property seven miles to the west, might well become the site of a future shopping center, because it's near those restaurants and that railroad station. That, after all, is the way cities like Tokyo and London have developed, as merchants compete for the flood of business within walking distance of rail stations.

But opponents of Metro have been quick to trumpet Metro's every action as devious and misleading. "You cannot trust Metro," says Barry Klein. "They are blinded by their goal. They are shading the truth." Metro's plan would be "highly costly, a drag on the economy," Klein says, not a pump to prime it. Even the new jobs generated by construction would, he says, fall largely into the laps of outsiders.

In June, Klein, McEwen, and other opponents went to Metro's board meeting to complain about the Miami/Atlanta Task Force Report prepared for Metro in 1986 by a group of independent transportation analysts. The report, opponents said, was suppressed because it concluded a few things that Metro didn't want the world to know:

- While it is clear that rail systems "can" result in operating cost savings on a

capacity basis (2.2 times bus), neither Miami nor Atlanta has achieved a use level such that operating cost-per-passenger is less than the bus system.

- More significantly, Houston Metro "will probably never realize the cost-per-ride figures of higher density cities like Atlanta, Boston, Philadelphia, etc." due to Houston's "lower population density and longer average trips per rider."

Klein's critique enrages Paul Bay, Metro's assistant general manager for transit system development. "This was not a hidden document. That's garbage. It was given to the press," says Bay. The Metro official adds that the opposition has widely misinterpreted the report. The most significant conclusion of the document, he says, was that Miami failed to come close to its ridership projections because it bet on "compounded optimism" - high gasoline prices, escalating parking costs, high economic growth, and a high level of feeder buses. No wonder Miami was shocked when only 20,000 people rode its new rail line - not the 200,000 it had projected.

Rather than ignore this supposedly damning report, as the opposition claims, Metro has profited from it, by dramatically scaling down its projections in a way that Miami never did. "If anything, we have gone the other way, from compounded optimism toward compounded pessimism," Bay insists. Metro's current projections for light rail ridership assume ambitious levels of highway construction that would make freeways - the competition - less congested, thus more attractive. They assume gasoline prices that won't increase, although they are already rising. They even assume slow economic growth, which would hurt the demand for Metro's services. Even then, insists Bay, the projections show light rail would save taxpayers money over the long run because it would cost less to operate.

Metro seems to have done its homework. But in an environment of distrust, even widespread disbelief, Metro's greatest challenge this fall won't be to run its bus system, or chart its complex new plans. It will be to win the public trust. ■