

COVER STORY

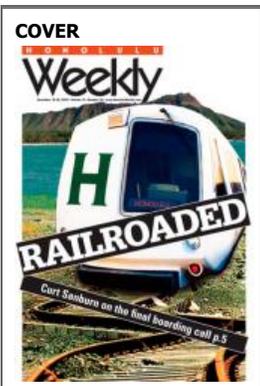


IMAGE: CITY AND COUNTY OF HONOLULU

Inside the raging debate over heavy rail

BY CURT SANBURN | NOV 18, 2009

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HONOLULU RAIL / Imagine an elevated concrete train viaduct rising from abandoned sugarcane fields just east of Kapolei and barreling through Waipahu, Pearl City and 'Aiea, past Pearl Harbor and the airport and into downtown. It shadows the length of Dillingham Boulevard. Nimitz Highway's curve around the downtown harbor front is capped by concrete.

Imagine 21, three-story, football-field-sized platform stations, with their escalators, elevators, stairs and other nooks and crannies. Think about how every future extension of the system will demand the same costly elevated tracks. Imagine the costs when—and if—the critical extensions to UH Manoa and Waikiki are built. Figure out, if you can, how these two separate east-bound viaducts will thread their way out of Ala Moana Center and around the Hawaii Convention Center. Then think about the 23 old monkeypods on the center strip of Kapiolani between McCully and University

that will have to be cut down for the overhead UH train. Think about the towering station at King and University in the heart of Mo'ili'ili, just before the line has to leap over the H-1 freeway to get to UH; or think about Kuhio Avenue in Waikiki, shorn of its coconut and shower trees under the belly of the train.

Or think about this: In an op-ed published in the *Honolulu Star-Bulletin* in April, The Outdoor Circle's president, Betsy Connors, wrote, "The Outdoor Circle knows of no other proposal that holds the potential to degrade the landscape of Oahu and change the character of our communities as greatly as the Honolulu transit project. We believe it will be the most visually disruptive project in the history of Hawaii."

Despite the project's air of inevitability—on October 22 the city signed the project's first construction contract worth \$483 million—Mayor Mufi Hannemann announced a week later that he would delay groundbreaking, slated for early December, for "at least" a month. To date, a key federal agency, the Advisory Council on Historic Preservation and its local consulting parties have not signed off on the project due to persistent concerns about the project's historical and archeological impacts. As a result, federal approval and publication of the project's Final Environmental Impact Statement is not expected until early 2010. In the meantime, transit geeks are warming to a plausible alternative plan, first promulgated in a report commissioned by the Kamehameha Schools.

Into the weeds

On June 2, Honolulu City Council members Duke Bainum and Charles Djou sent a 10-page appeal to the U.S. Department of Transportation. The letter outlined several concerns about the Hannemann administration's procedural "rush" to lock in the technology, the route and the all-elevated profile for Honolulu's rail transit project—without public airing of less costly and less intrusive rail-transit alternatives, alternatives that many Oahu stakeholders believe the island must examine before it signs on the dotted line.

The rush is most apparent in the fact that rail-transit alternatives never had a hearing—much less a vote—at the Council. Nor had the City seriously considered plausible alternatives during the federally required Environmental Impact Study process.

Instead, public deliberation was reduced to a one-sided public-relations campaign fueled by a reported \$5.6 million in city funds spent between August 2005 and September 2009. The contest culminated in an Oahu-wide vote in November 2008, when islanders were simply asked to green light a detail-free steel-on-steel transit system, which they did, 53 percent "yes" to 47 percent "no."

Called the Honolulu High-Capacity Transit Corridor project (HHCTC), Mayor Mufi Hannemann's \$5 billion-plus all-elevated heavy-rail transit system is now closer than ever to

Since the 1970s, rail systems have advanced tremendously." So said University of Pennsylvania Professor Vukan Vuchic. Author of the well-known "Transit Trilogy" of textbooks, Vuchic was on sabbatical in Munich when he agreed to review the KS report at Honolulu Weekly's request. While he did not endorse the report, he said the report had several valid points and offered a few observations:

"A transit system is very often the biggest investment a city makes," Vuchic said. "It's a permanent investment, because it really changes the character of the city. Then comes another fact, and that is that Honolulu is extremely environmentally sensitive. Remember, transportation is not a goal in itself, it's a livable city. That's the goal."

Vuchic agreed with the KS report that a carefully planned LRT system could meet HHCTC's capacity goal of 8,100 passengers per hour, and that the 12-minute additional travel time for an LRT system was not such a big difference. The professor noted that HHCTC's technology will cause the city to pay "hundreds of millions" for every mile of extensions in the future.

"Light rail could result in a larger network of several lines," he advised, "and thereby serve the island much better than a single corridor. That's one

reality. The HHCTC project is nearly identical to the elevated concrete railroads that City officials have been dreaming about since 1970.

“We have responsibilities,” Bainum and Djou’s letter to Washington began, “that require us to ensure that public funds—regardless of their source—are expended wisely and to safeguard our constituents from tax burdens that otherwise could be avoided through good governance.”

The letter’s key claim was that the city had not done what it said it was going to do with the HHCTC Draft Environmental Impact Statement (DEIS) in late October 2008. Nineteen months earlier, the project’s Notice of Intent document published in the Federal Register said the DEIS “would consider five distinct transit technologies: light rail transit, rapid rail transit, rubber-tired guided vehicles, a magnetic levitation system, and a monorail system.”

The DEIS considered only one of them, rapid rail transit, calling it the “preferred alternative,” which translated into an elevated fixed-guideway system running 20 miles from East Kapolei to Ala Moana Center. Both the UH-Manoa and Waikiki spurs were discussed in the Notice of Intent but were omitted from the DEIS.

“Our concern,” Bainum and Djou wrote, “is that the DEIS does not conform with its intent as stated in the Federal Register, which we understand to be legally binding on the parties that published the notice.” Citing National Environmental Protection Act compliance issues, they asked the Department of Transportation to intervene. Six days after Bainum’s death in June, Djou received a brief reply letter from the Federal Transit Administration: “The Environmental Impact Statement Process for the HHCTC has not been concluded,” a regional administrator wrote. “It would be improper at this point for any official to attempt to intercede.”

Djou recently said that the City Council had never affirmatively voted for an all-elevated system. “When we voted on the Locally Preferred Alternative, at-grade or elevated wasn’t the question,” Djou said in an interview. “It was, Should we do a fixed-guideway system, and the answer there, of course, was ‘Yes, we should.’”

Asked about the near-future, Djou predicted that “the administration will ignore these questions and push ahead, but the feds could come back and say, ‘you didn’t cross your t’s and dot your i’s.’”

“The other way to do it is for the Honolulu City Council to develop a spine,” Djou said. “But right now, I don’t see that happening.” He was referring to the Council’s inability to force a public hearing on transit alternatives despite a recent 5-4 vote asking for one—and to the Council’s upcoming vote authorizing the city to float a \$1.5 billion bond to finance initial construction. That vote requires a two-thirds majority, or six votes.

The Kamehameha Schools report

On September 13, the *Honolulu Advertiser* revealed that Kamehameha Schools, the largest landowner in the state, had commissioned a report that was critical of HHCTC and that claimed, through its own alternative proposal, to reduce HHCTC’s cost by \$1.7 billion and construction time by 18 months.

To effect these savings, the KS report suggests converting the city’s proposed transit system from heavy-rail technology to light rail transit (LRT) technology. This would allow the city to convert about half of HHCTC’s 20-mile route to ground-level tracks and service. The KS report estimates that the cost-per-mile to build ground-level (or “at-grade”) double tracks at \$50 million, versus \$270 million to build a mile of elevated

of the great advantages. There are always trade-offs, but if you can show that this light rail system Mr. Craig is proposing would have some advantages and some shortcomings in the first stage, future extensions can still be built at a much lower cost, which is highly significant.”

double tracks.

Two segments of the line would become at-grade: the westernmost five-mile segment from East Kapolei to Pearl Highlands, and the easternmost 4.5-mile segment through central Honolulu, from Dillingham to Ala Moana Center. It would mean relief from Mufi's elevated Dillingham-Nimitz-Halekiau alignment in favor of a surface-street loop route serving the city's heart. The two options for the loop use different combinations of Hotel, King, Kapiolani, Ward, South and Beretania; Ala Moana Center would still be the east terminus. The middle 10-mile segment—Pearl Highlands-'Aiea-Aloha Stadium-Pearl Harbor-the airport-Middle Street—would remain elevated.

The logic of building the western segment at grade is easy: Why build costly elevated tracks and stations across relatively low-density land when a much cheaper at-grade system would work as efficiently?

But, beyond the obvious reduction of visual blight, the logic of abandoning the elevated train and bringing an at-grade LRT system into central Honolulu, using already clogged city streets, is full of trade-offs and requires a leap of faith. It's a leap made by at least 20 American cities in the past 20 years. Among them, Portland (1986), Denver (1994), Dallas (1996), Sacramento (1998), Salt Lake City (1999) and Minneapolis (2004) are considered to be models for success. Operationally, mixed-grade LRT systems are popular for their ease of use, their stimulative effects on urban neighborhoods, their flexibility and low cost.

Typically, LRT lines use electricity from overhead wires to power low-floor, driver-operated vehicles running on trackways laid into existing streets—sort of like pampered longer buses, with prioritized traffic signals and dedicated lanes facilitating step-on-step-off service at bus stop-style stations.

The KS report admits that at-grade LRT operating on city streets is slower than elevated heavy rail, and estimates that LRT would add 12 minutes to the 44-minute, end-to-end travel time (East Kapolei-to-Ala Moana) projected for the HHCTC project.

HHCTC uses older, third-rail traction, high-floor-car technology that requires the automated system to operate in exclusive, grade-separated rights-of-way. This is almost typical of what is generally known as "heavy rail transit" or "metro rail transit," except that most metro systems operate in underground tunnels through congested city centers. Examples include BART in the San Francisco Bay Area (1972), Washington D.C.'s Metro (1976), MARTA in Atlanta (1979) and the Vancouver SkyTrain (1986).

The most recent, all-elevated, metro rail project in the U.S. is the troubled, \$2.2 billion Tren Urbano in San Juan, Puerto Rico. Like the HHCTC plan, the Tren Urbano operates on a single alignment for its 11-mile, 16-station route. Since it started service in 2005, Tren Urbano's ridership numbers have reportedly dropped significantly.

Since its report was made public, Kamehameha Schools has been silent on the subject and refused a request to interview executives within the organization about the report. KS spokesperson Ann Botticelli summarized the situation in an e-mail message: "As part of the DEIS comment process," she wrote, "we commissioned Phil Craig to conduct an analysis of how a flexible system might work, and his report was the result of that. We did not intend to publicly present it as an alternative to the City's plan, and it would be a mistake to characterize it as an alternative."

Phil Craig is a New Jersey-based independent transit consultant who has 50 years' experience working on transit and rail systems worldwide including New York's MTA, the London Underground, the Athens Metro, high-speed rail projects in Korea and Taiwan, and Portland and Boston LRT projects.

"Kamehameha Schools had serious concerns about environmental issues raised in city's

rail plan,” Craig said in a phone interview. “As I understand it, they have a charge to protect their patrimony.

“The charge that I was given was to decide if Light Rail Transit was viable as an alternative for Honolulu, and if it wasn’t, to say so. They wanted objectivity. My conclusion was that LRT is a better fit for Honolulu.”

The city’s reaction to the KS report was swift.

The 21-page response prepared by the city’s engineering consultants, New York-based Parsons Brinckerhoff, blasted the KS report on nearly every point it made. It used “biased” information and lacked “an understanding of local conditions in Honolulu.” The consultants even argued that as much as an elevated train is a visual blight, streetcars are a visual blight, too.

The fusillade was attached to a letter to Councilman Djou from Hannemann’s office dated September 14. Djou had been quoted in the *Advertiser* the day before expressing interest in the KS report and suggesting that it warranted a public hearing before the City Council.

The KS report “was not completed by a credible engineering firm,” the cover letter said; its data collection was “casual,” and the Federal Transit Administration hadn’t reviewed it. “Hearings on the KS-commissioned study will not cover new ground. ... We therefore ask that you reserve comment about such proposals until you have all of the facts.”

A “stupid” report?

“Stupid” is how the KS report was described to a *Pacific Business News* reporter by Toru Hamayasu, the city’s general manager for the HHCTC project.

Hamayasu now says he regrets the remark. But, in an interview, he maintains that all the talk about LRT and what mainland cities are doing isn’t applicable in Honolulu. “Our situation is quite different,” he said. “Number one, most mainland cities have radial development patterns, where losing a street for at-grade rail is not a significant loss in car capacity.”

He talked about the number and busyness of cross streets and the multitude of driveways. “How do you deal with a driveway when you propose to put a train track in the curbside lane?” he asked.

On the subject of cost, Hamayasu said the KS report “made light” of the complexity of excavations required when laying down LRT track beds on existing streets. The KS report estimates excavation depths between one and two feet. But because of Honolulu’s soft and sandy soils, Hamayasu said, “you have to go deeper.” He pointed to the utility lines—water, gas, electric, sewer—buried beneath most streets. “It’s conventional wisdom to remove all these utility lines out from underneath the track beds,” he said. “That’s a lot of work.”

He said that footings for HHCTC’s paired support columns, spaced every 150 feet, each with a seven-foot diameter and requiring a 50- to 60-foot-deep hole, will have less impact on native Hawaiian burial sites than continuous excavations of existing streets.

Hamayasu’s transit career began in 1972, when the young UH-trained engineer began working on the city’s preliminary engineering and evaluation program for a rapid transit system sponsored by then-Mayor Frank Fasi. That Pearl City-to-Hawaii Kai plan was “almost identical” to the HHCTC, Hamayasu said. The project died in 1981, after President Reagan curtailed federal transit funding.

With Fasi’s return to the mayor’s office in 1984, Hamayasu worked on the city’s second attempt at rail transit, Fasi’s much-ballyhooed HART plan, which was all set to go until

September 1992, when the City Council pulled a stunning switcheroo and rejected the tax increase necessary to pay for it in a 5-4 vote.

“Once again, the plan was very much the same as today’s plan, except that this one went from Pearl City to UH-Manoa,” Hamayasu said. “The alignment, type of vehicles and all that were very, very similar.”