

From: Ed Hirata
To: Hamayasu, Toru
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Subject: Fw: DRAFT summary of meeting with Toru

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----- Original Message -----

From: Glater, David
To: edhirata@hawaii.rr.com ; Owen Miyamoto
Cc: elkhayashida@hawaii.rr.com
Sent: Tuesday, November 21, 2006 9:19 AM
Subject: DRAFT summary of meeting with Toru

DRAFT for review and comment

Following is a summary of the meeting we had yesterday with Toru Hamayasu and Clyde Shimizu. I had the sense, as I was taking my notes during the meeting, that one or both of you were writing your own notes while my pen was still. I think you recorded information that I let go by. Please feel free to modify the draft below to include your recollections, and also to correct any errors, etc.

Happy Thanksgiving. Should you need to reach me, my cell # is 347-853-0628. I will be back in Honolulu on Monday evening.

dg

Notes from a meeting Transit Task Force members Ed Hirata and Owen Miyamoto (and the undersigned) had with Toru Hamayasu, DTS, and Clyde Shimizu, Senior Civil Engineer with Parsons Brinkerhoff. The meeting was initiated by the Transit Task Force members to discuss the basis for guideway cost estimates in the Alternatives Analysis.

We began with a comparison of the Managed Lane Alternative to the HOT Lanes recently built in Tampa, Florida (hereafter Tampa HOT). First, Toru provided background facts on the Tampa HOT and Alternative Three, Managed Lanes. The Managed Lanes Alternative is 15.8 miles long, to be built entirely on elevated structures. The Tampa HOT is 9.4 miles long, of which 4 miles is at grade, and approximately 5.4 miles is built on structures. The Tampa HOT has three lanes, and is approximately 59 feet wide. The Managed Lanes Alternative (assuming reversible lanes) is 36 feet wide (12 feet per lane, plus 12 feet for shoulders). The Tampa HOT cost \$300 million to build (including both at-grade and elevated sections), plus \$120 million to correct an engineering error in the construction of foundations for some of the support piers. Toru concluded that these physical differences, plus the significant differences in construction costs generally between Tampa and Honolulu, make the comparison of costs for these two projects invalid.

Toru then described how guideway costs were calculated for the Alternatives Analysis. Both the Managed Lanes Alternative and the Fixed Guideway Alternative use the same unit cost prices and cost calculation categories. These standardized cost categories are prescribed by FTA to facilitate review of project cost information from all projects seeking Federal funding. The cost data (cost per linear foot of concrete, square feet of steel sheet, etc.) were obtained from the most recent

large-scale construction project on Oahu, construction of the Waimalu highway viaduct, completed last year. The consultants, Parsons Brinkerhoff, also made use of the U.S. Navy's unit cost construction cost data. Labor and other costs from the Waimalu Highway Viaduct project were also used as inputs for Alternatives cost estimates. The cost per square foot of the Waimalu Viaduct, \$500 per square foot, was considered but not relied on because this work involved widening an existing elevated highway structure, which is known to be more expensive than new construction.

Guideway construction cost estimates developed for the Alternatives Analysis are also high compared to Tampa HOT costs because the AA's projected costs include a 30% escalation for "soft costs" (engineering costs) and a 25% escalation for contingency costs,. The Tampa HOT cost (\$300 million) represents actual construction costs only. Clyde Shimazu pointed out that the per square foot costs of H-3 in 1990 (\$180) exceeded the Tampa HOT costs incurred only a few years ago.

We discussed whether the construction costs for the elevated guideway needed for the Managed Lanes Alternative were calculated the same as or differently from the construction costs for the guideway for the Fixed Guideway Alternative. The answer is that these costs were calculated using the same per-unit cost elements (for concrete, steel, labor, etc.). Because the guideway for the Managed Lanes Alternative (reversible lanes) would be 36 feet wide, whereas the guideway for the Fixed Guideway would be only 26 feet wide, different diameter piers are necessary for each (8 feet versus 6 feet in diameter). However, where the Managed Lanes Alternative requires only a single lane (e.g., an exit ramp), a 6 foot diameter support pier would be used, similar to and costing the same as the piers used for the Fixed Guideway. The span length between piers is 120 feet for both Alternatives' guideways. Portions of the guideway for the Fixed Guideway Alternative will be significantly taller than the Managed Lanes Alternative guideway -- 90 feet tall in some places.

Would the capital cost for the Fix Guideway Alternative be approximately the same as the guideway cost for the Managed Lanes Alternative if the following fixed-guideway-specific adjustments were made: subtract vehicle costs, system infrastructure cost, cost for downtown utilities relocation (the Managed Lanes Alternative does not reach downtown, where utilities relocation costs are incurred), cost for construction differences (e.g., different diameter piers), then adjust for the Fix Guideway Alternative's longer length and increased height. Answer: yes, the costs of guideways for the two alternatives would be comparable.

Right-of-way costs: the State will make available all State highway rights-of-way necessary for either Fixed Guideway and Managed Lane Alternatives.

Would FTA New Starts funds be available for the Managed Lane Alternative if it were not open to single-occupant motor vehicles? Yes. State GET funds would also be available in this circumstance. However, inclusion of toll-paying single-occupant vehicles was part of Cliff Slater's

alternative proposal (see below), and no operational changes were made. Toru's view was that FTA is no longer funding HOV lanes, because these are now considered to be highway expenditures, for which Federal Highway funds are available. FTA will support fixed guideway construction for buses only (Bus Rapid Transit).

The Tampa HOT does not cover its operating costs through tolls, as has been claimed. Tampa HOT is built over an existing toll road, and tolls from that pre-existing road are used to subsidize the HOT Lanes' operating costs. Tampa HOT generates \$3 million per year in toll revenue, probably not enough to cover its interest costs.

At this point I distributed the following questions that had come up from my conversations with Task Force Members and/or my own research.

1. From the local press, there appears to be a willingness to spend 3.2 -- 3.6 billion dollars for a fixed guideway system, and considerable discomfort spending more than that. Can you calculate how much \$3 billion (or \$3.2 billion) would buy toward a system with the following alignments:

a) beginning at UH-Manoa and running Ewa using the optimal alignment described in Chapter 6 of the Alternatives Analysis Report.

b) same question, but using the Salt Lake Blvd alignment instead of the Aolele Street alignment in Section 3, Aloha Stadium to Middle Street.

2. What are the capital costs for the fixed guideway link between Ala Moana Center and the University -Manoa? Link between Ala Moana and Waikiki?

3. Has DTS analyzed any Minimal Operating Segment (MOS) other than the 20-mile alignment?

4. How do the construction standards for the guideway for the Managed Lane Alternative (Alternative 3) differ from the standards applicable to construction of the guideway for the Fixed Guideway Alternative (Alternative 4)? Do construction costs for these two guideways differ?

5. Has the DTS analyzed the Managed Lane Alternative operated so as to qualify for FTA New Starts funding (no single-occupant vehicles)?

Toru said he would provide written answers to these questions. We agreed, however, that question 4 has been answered through the discussion summarized above.

With respect to question 1(a), Clyde provided a rough estimate of the extent a fixed guideway system could be constructed for \$3.2 billion, starting at the University -- Manoa and running Ewa. His answer: approximately to the location of the proposed repair yard.

The answer to question 3 is No.

With respect to question 5, Toru informed us that the Manage Lane Alternative is based entirely on a proposal alternative that Cliff Slater submitted approximately 1 year ago, in response to invitations to the public to come up with alternatives to a fixed guideway system. The primary differences are that the DTS Managed Lane Alternative now includes an off ramp at the stadium, and a station near Middle Street.

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