

29 December, 2008

To:
Mr. Wayne Yoshioka
Director Department of Transportation Services
City and County of Honolulu
650 South King St. 3rd Floor
Honolulu
HI 96813
FAX: (808) 587-6080

Subject: Comment on Draft Environmental Impact Statement (DEIS) "Honolulu High-capacity transit corridor Project", Issue: Fixed Guide way Alternative is not Cost Effective because it does not provide traffic relief at the two Oahu major traffic bottlenecks at the H-1/H-2 merge and at the Middle Street merge despite the Fixed Guideway cost of at least \$6.0 Billion

Facts:

Table 3-12 of the 2006 Alternative Analysis shows that the a.m. Koko Head Bound at Kalauao Stream traffic volume on H-1 Freeway (volume capacity = 9,500 vehicles per hour) will increase from 10,960 vph to 17,209 vph in year 2030. This congestion will increase after the \$6.0 Billion Fixed guideway is built and operating. This raises the question: Why build a \$6.0 Billion rail if it does not eliminate or substantially reduce the congestion on H-1 at Kalauao Stream? The very high cost of the rail is certainly not cost effective if it does not reduce the congestion on H-1 at the H-1/H-2 merge and at the H-1 middle Street merge during the a.m Koko Head bound peak hour traffic.

Discussion:

A combination of a new Kamehameha Flyover (three-lane HOV Reversible) at a cost of \$320 million and a Nimitz Flyover (three lane HOV reversible) at a cost of \$240 million is cost effective which will eliminate the congestion on H-1 at Kalauao Stream and at Middle Street merge and is a superior alternative to the fixed guideway.

Kamehameha Flyover, Reversible HOV:

The Kamehameha HOV Flyover (Reversible) is a 3-mile reversible, elevated, three-lane structure over the median of Kamehameha Highway from the H-1/H-2 merge at the Waiawa Interchange to the Airport Viaduct just east of the Aloha Stadium. The Flyover would be built similar to the Tampa Elevated three-lane Reversible HOV as described in- <http://www.tollroadsnews.com/node/172> .

The Kamehameha Flyover would be connected to H-1, H-2, Kamehameha Highway and Farrington Highway at the west end and to the Airport Viaduct at the east end. These connections are described in a Managed Lane Study "Transportation Alternatives Analysis for Mitigating Traffic congestion between Leeward Oahu and Honolulu". The full report is available at www.eng.hawaii.edu/~panos/UHCS.pdf.

The initial 2005 cost for the 10 mile Tampa Reversible was \$320 million or \$32 Million per highway mile, however, a geotechnical design error increased the cost to \$420 million or \$42 million per mile. Using a geographic and escalation factor of 100 percent, the 4-mile Kamehameha HOV Flyover at \$60 to \$80 million per mile would cost between \$240 million to \$320 million.

The Kamehameha Three-Lane HOV Reversible Flyover has a capacity of 6,000 high occupancy vehicles per hour (equivalent 21,600 commuters per hour). This capacity is based on HOV use on Flyover by 200 express buses per peak hour, car pools, van pools, green cars and HOV2. (50 pns per express bus and 5800 vph at avge 2 pns per vehicle).

There is a projected 8,000 vph overload on H-1 during am peak at Kalauao Stream per Table 3-12 of the Alternative Analysis. This 8,000 vph overload equates to 9,600 commuters per hour. **Therefore, the**

three-lane Kamehameha Flyover (cap = 21,600 commuters) has ample capacity to accommodate the H-1 overload (9,600 commuters).

The Draft Environmental Impact Statement (DEIS) - Honolulu High-Capacity Transit Corridor Project Nov 2008 , shows the rail route over Kamehameha Highway between Pearl City and Aloha Stadium which could conflict with the proposed three-lane "Kamehameha Flyover" route outlined above. If the rail is built, it is suggested that both the Kamehameha Highway "Flyover" and the Rail be built within the elevated Kamehameha Highway corridor. In this case, only a two-lane "Kamehameha Flyover" is needed (instead of three-lanes) to be built alongside and parallel to the Rail transit. The rail with a capacity of 6,000 commuters per hour and the two-lane "Kamehameha Flyover", with a capacity of 4,000 vehicles per hour, should be adequate to substantially reduce the bottleneck at the H-1/H-2 merge and the traffic congestion on H-1 between Pearl City and Aloha Stadium.

Nimitz Flyover, Reversible HOV:

The Nimitz HOV Flyover is a 3-mile reversible, elevated, three-lane structure over the Nimitz Highway median from the Airport Viaduct at Keehi Lagoon to Hotel Street and Alakea St/Halekauwila St. The Flyover would be built similar to the Tampa Elevated three-lane Reversible HOV as described in- <http://www.tollroadsnews.com/node/172> .

One of the three lanes would exit the Flyover at Waikamilo Rd. to provide access to job centers in Kalihi, resulting in the Flyover having only two lanes entering downtown. The downtown terminal connections from the Nimitz HOV Flyover include an elevated busway from Iwilei to Hotel Street and a single lane underpass to both Alakea St/Halekauwila Streets. These connections are described in a Managed Lane Study "Transportation Alternatives Analysis for Mitigating Traffic congestion between Leeward Oahu and Honolulu". The full report is available at www.eng.hawaii.edu/~panos/UHCS.pdf.

The initial 2005 cost for the 10 mile Tampa Reversible was \$320 million or \$32 Million per highway mile, however, a geotechnical design error increased the cost to \$420 million or \$42 million per mile. Using a geographic and escalation factor of 100 percent, the 3-mile Nimitz HOV Flyover at \$60 to \$80 million per mile would cost \$180 million to \$240 million.

The "Nimitz Flyover" has an approved Final Environmental Impact Statement which allows for early construction.

Conclusion:

The \$6.0 Billion Fixed guideway rail is NOT cost effective because it does not eliminate the congestion at the H-1/H-2 merge and at the H-1 Middle Street merge while the \$320 million Kamehameha Flyover and \$240 million Nimitz Flyover are very cost effective because both have lower construction cost as compared with the Fixed rail guideway.

Recommendation:

It is recommended that DEIS include a Kamehameha Flyover (reversible three-lane HOV elevated) and a Nimitz Flyover (reversible three-lane HOV elevated) as a transit Alternative to provide traffic relief.

Respectfully,

Ben Ramelb P.E.
1148 Ala Lilikoi St
Honolulu, HI
96818

Copy to:

Mr. Ted Matley
FTA Region IX
201 Mission St. Suite 1650
San Francisco, CA 94105
FAX 415-744-2726

Governor Linda Lingle
Hawaii State Capitol
415 S Beretania St. 5th Floor
Honolulu, HI 96813
FAX (808) 586-0006

Honolulu City Council Members
FAX (808) 867-5011