February 6, 2009.

Mr. Wayne Y. Yoshioka
Department of Transportation Services
City and County of Honolulu
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Honolulu, HI 96813
808-768-8303
Email: wyoshioka@honolulu.gov

Dear Mr. Yoshioka:

Comments on the Honolulu Draft Environmental Impact Statement (Draft EIS)

Our comments on the Draft EIS are attached in seven parts:

Part I All reasonable alternatives were not studied.
Part II Insufficient consideration of elevated rail impacts.
Part III The Locally Preferred Alternative must be studied in the EIS.
Part IV First Project, Phase I, is an illegal segmentation.
Part V Unjustifiable forecasts.
Part VI Strategic misrepresentation in the Draft EIS.
Part VII Strategic misrepresentation outside of the Draft EIS.

We find the Draft EIS continues, as did its forerunners, the Oahu Regional Transportation Plan and the Alternatives Analysis, to mislead the public with unclear language, misrepresentations, and omissions of important material so as to position this document as less of an analytical and informative document and more of a selling tool.

Hopefully you will produce a Supplementary Draft EIS that will remedy these misrepresentations, omissions, and unclear language so that it will be clear to the public that,

- You are forecasting traffic congestion to be worse in the future with rail than it is today.
- An elevated rail line traversing the core of our city will have a deleterious effect on our environment.
- There exists a high risk of property taxes being greatly increased to fund the increased operating subsidies and the missed construction cost forecasts.
- The project places undue risks on an already fragile economy.

We find that the City has taken an insufficiently "hard look" at the alternatives that were rejected, at those issues we have discussed herein as misrepresentations in the Draft EIS, and the ridership forecasts, as examples. They are supposed to be dealt with in detail. As one court held,

> *... assumptions must be spelled out, inconsistencies explained, methodologies disclosed, contradictory evidence rebutted, record references solidly grounded, guesswork eliminated and conclusions supported in a manner capable of judicial understanding.* [1]

We find that the City and Parsons Brinckerhoff have not produced a document that has handled these important environmental issues with the objectivity and scientific rigor that is both needed by the public and is a NEPA requirement.

[1] E. I. DuPont de Nemours & Co. v. Train, 541 F.2d 1018, 1038 (4th Cir. 1976).

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In summary, we believe the alternatives analysis is legally insufficient since the Managed Lanes Alternative analysis is so lacking in factual substance that it must fail to give the reader the true meaning of the alternative. Failing to provide accurate and complete information, especially for one of the most important socioeconomic factors — the incredibly high cost to Hawaii's citizens — makes this a faulty document that must be redone.

When the analysis fails to describe the incredibly low cost of the Tampa project when compared to the projected Hawaii costs, one cannot help to wonder why this fact was left out. Socioeconomics has been given very little if any attention in this document and failure to point out the Tampa project was approximately seven times cheaper than this proposed action is problematic and thus the underlying analysis fails.

The people of Hawaii were not given this information and if they were given this information, perhaps the vote may have gone differently. If they had been given this information in this NEPA document, perhaps they would have had more meaningful comments on the proposed action. We will not know unless a new Draft EIS is produced.

The Draft EIS is also simply not readable and thus doesn't give the opportunity for the reader to make meaningful comments. It incorporates by reference 20 studies and the Draft EIS fails to weave a narrative that accurately describes in the NEPA document, as required by NEPA, the true potential impacts that will be caused by the proposed action.

In a less complicated project, perhaps this would be acceptable; but in a proposed $5 billion project that will displace hundreds of people, condemn homes and businesses, disrupt traffic and Oahu's quality of life, disturb cultural resources, potentially uncover sacred *iwi*, cause financial hardship to hundreds of thousands of people, while disregarding reasonable alternatives, or leaving out key components of other alternatives, is completely unacceptable.

The City and County and the FTA must be held to the standard required by the 9th Circuit, NEPA, and Hawaii State law, and the information presented fails to meet these standards. We request that a Supplemental Draft EIS be undertaken.

Sincerely,
HONOLULUTRAFFIC.COM

Cliff Slater
Chair

CDS/rrs

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February 6, 2009

Part I — "All reasonable alternatives" were not studied.

"There's small choice in rotten apples."

This line from Shakespeare's *The Taming of the Shrew* is, appropriately, the opening line in the FTA's introduction to *Evaluation of the Alternatives*.[1]

We believe that insufficient alternatives were considered during the Alternatives Analysis. Each prior rail transit effort in Honolulu from the 1970s on has suffered from the same problem; the range of alternatives studied was inadequate and disinterested experts have all commented on it.

> *Finally, the most serious deficiency of analyses done to date is the failure to devise and evaluate meaningful alternatives to HART [Honolulu Area Rapid Transit]. The so-called "alternatives analysis" is seriously deficient and the bus alternative considered in them can only be considered as "straw men."*
> *Dr. John Kain, Chair, Economics Department, Harvard. 1978.*[2]

> *In particular, what is lacking is a serious investigation of several viable dedicated busway options.*
> *Dr. Robert Cervero, Professor of Urban and Regional Planning, UC-Berkeley. 1991.*[3]

Many more examples in a similar vein are available from experts' critiques of the 1990 Alternatives Analysis.[4]

The National Environmental Policy Act (NEPA) process requires that the City & County of Honolulu (City),

> *Rigorously explore and objectively evaluate all reasonable alternatives ... Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits ... Include reasonable alternatives not within the jurisdiction of the [City].*[5]

The Council on Environmental Quality's (CEQ) comments on 1502.14 is as follows:

> *Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.*[6] *(emphasis added)*

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1 http://www.fta.dot.gov/documents/Evaluation_of_Alternatives.pdf

2 Seminar on Urban Mass Transit (transcript). Office of the Legislative Auditor, State of Hawaii. January 1978.

3 Quoted from "An Evaluation of the Honolulu Rapid Transit Development Project's Alternative Analysis and Draft Environmental Impact Statement." Hawaii Office of State Planning and University of Hawaii. May 1990. Robert Cervero, Professor of Urban and Regional Planning at the University of California, Berkeley, and a member of the Editorial Board, Journal of the American Planning Association.

4 An Evaluation of the Honolulu Rapid Transit Development Project's Alternative Analysis and Draft Environmental Impact Statement. Hawaii Office of State Planning and University of Hawaii.May 1990. Available at the Honolulu Municipal Library.

5 40CFR1502.14

6 Question 2A in CEQs 40 Q&As. http://www.mnrg.gov/meetings/2005cimpacts/pdfs/40Questions.pdf

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In addition to rail transit and No-Build, there are at least three other alternatives that should have been considered in the Draft EIS:

1. The Reversible Managed Lane Alternative
2. The 2003 Bus/Rapid Transit Project
3. The EZway plan.

1. The Reversible Managed Lane Alternative.

> *The draft EIS shall evaluate all reasonable alternatives to the action and discuss the reasons why other alternatives, which may have been considered, were eliminated from detailed study. (23CFR771.123)*

The reasons given for the elimination of the Managed Lane Alternative from the Draft EIS are insufficient since little supporting data is given for the conclusions reached and no reference is given to any other publication that might have it. It is not surprising since there was little in the Alternatives Analysis or in the documents regarding the second Scoping when we first found that the Managed Lane Alternative had been eliminated.

For example, the Draft EIS tells us *"that the Managed Lane Alternative would provide slightly more benefit [than TSM] at a substantial cost."* We can only guess at what that means.

A Bus/Rapid Transit (BRT) bus would travel at 55mph while on the Managed Lanes and, say, 15 mph when on city streets. If the distance traveled on city streets is one-half of that traveled on the Managed Lanes the average speed would be 29 mph — faster than trains. But the benefit to users of trains is supposedly three times that of the Bus/Rapid Transit on Managed Lanes?

Also two, or possibly three, additional lanes managed through dynamic pricing would each have a vehicle throughput close to twice that of each of the nearby congested freeway lanes according to the Federal Highways Administration (FHWA).[7] Such lanes would add the equivalent of four to six lanes to the current (and projected through 2030) five regular freeway lanes. And we are supposed to believe that traffic congestion[8] will be far worse with Managed Lanes? There is no support for this in the Draft EIS nor any reference to other documents.

We made the original proposal for a reversible dynamically-tolled highway which led to its inclusion in the First Scoping authorized in the federal Notice of Intent of December 5, 2005.

The concept that we proposed to the City was what Reason Foundation's Robert Poole, termed a *Virtual Exclusive Busway* where buses and vanpools have priority and go free of toll charges and all others pay a dynamically-priced toll. It has all the virtues of an exclusive busway, while also having a significant impact on automobile traffic congestion in the Corridor.

The City's Chief Transportation Planner said that he used the map of our proposed route from our website and that, *"This is what HONOLULUTRAFFIC.COM requested us to study and this is exactly what we studied."*[9]

However, our original proposal was only a conceptual one; at the time we did not have the technical expertise to do anything else and we certainly did not have the resources to submit a comprehensive design. Far from being a design, a cursory look at our original map shows a freehand line drawn none too steadily along the route with a black marker pen. It never crossed our minds that Parsons Brinckerhoff would not apply its expertise to provide the best possible alternative.

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7 FHWA's *Congestion Pricing — A Primer.* At: http://www.honolulutraffic.com/congestionpricing.pdf p. 3.

8 See Vehicle Hours of Delay in Table 2-1, Draft EIS.

9 League of Women Voters Forum video, http://www.brightcove.tv/title.jsp?title=1301088850&channel=293897125 5:00 minute mark of 10 minute video.

We had forecast a cost of $900 million for a 10-mile two-lane version. This estimate of cost came from a one-day conference that Governor Lingle asked us to conduct in December 2002 to evaluate whether the reversible tolled transitway concept was worth pursuing. Some of Hawaii's and the nation's leading experts[10] on this issue were represented at the conference. The concept and cost estimates met with the general approval of the attendees and accordingly we recommended to the Governor that the project be further developed to a higher level of detail.

In December 2005, the FTA issued the first Notice of Intent and it stated,

> *Alternatives proposed to be considered in the AA [Alternatives Analysis] and draft EIS include No Build, Transportation System Management, Managed Lanes, and Fixed Guideway Transit.*

After the first Scoping, the Scoping Report of April 6, 2006[11] issued and confirmed that the Managed Lane Alternative would be studied in both the Alternatives Analysis and the Draft EIS.

Subsequently, the Alternatives Analysis was produced in November 2006 and recommended that the Fixed Guideway Alternative be adopted as the Locally Preferred Alternative and shortly thereafter the City Council chose the Fixed Guideway Alternative with termini at West Kapolei, University of Hawaii at Manoa and Waikiki.

However, the Managed Lane Alternative was not objectively studied in the Alternatives Analysis. Rather, the Managed Lane Alternative was setup as a classic "straw man," contrived to make it look ineffective in comparison to rail transit.

Professor John Kain, co-author of the classic *The Urban Transportation Problem,* who wrote extensively about such tactics, wrote in his *The Use of Straw Men in the Economic Evaluation of Rail Transport Projects,*[12]

> *Nearly all, if not all, assessments of rail transit systems have used costly and poorly designed all-bus alternatives to make the proposed rail systems appear better than they are.*

Out of the blue, on March 15, 2007, the FTA issued a second Notice of Intent[13] but this time excluded the Managed Lane Alternative. This was the first intimation we had of its rejection. Both the first Notice of Intent[14] and the first Scoping Report[15] had stated that the Managed Lane Alternative would be studied in the Draft EIS.

Mr. David Glater, then the recently retired Chief Counsel of the US DOT's Volpe Center, who had been appointed to be the Transportation Analyst for the City Council's Transit Advisory Task Force, and who wrote the Task Force Report, must have also been surprised since his Appendix 3, attached hereto as Appendix B, is titled, *"Suggestions for further development of the Managed Lane Alternative."*

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10 In attendance: Mike Schneider, Executive Vice President of PB Consult, Mel Miyamoto, Vice President, Heavy Construction, Dillingham Corporation, Roger Morton, General Manager of OTS Inc, operators of the City's bus system, Bruce Turner, Assistant Division Administrator, Hawaii Division FHWA, Robert Poole, Director of Transportation Studies, Reason Foundation, Glenn Yasui, Highways Division, Hawaii Dept. of Transportation (Hawaii DOT). By phone: Patrick DeCorla-Souza, AICP, Team Leader, Highway Pricing and System Analysis, Office of Transportation Policy Studies FHWA, C. Kenneth Orski., Urban Mobility Corporation, consultant and publishers of *Innovation Briefs.*

11 http://www.honolulutraffic.com/ScopingReport.pdf

12 Kain, John F. *The Use of Straw Men in the Economic Evaluation of Rail Transport Projects.* American Economic Review, Vol. 82, No. 2, Papers and Proceedings of the Hundred and Fourth Annual Meeting of the American Economic Association (May, 1992) , pp. 487-493. At: http://www.honolulutraffic.com/kainrail.pdf

13 www.honolulutraffic.com/noi0307.pdf

14 www.honolulutraffic.com/NOI051205.pdf

15 http://www.honolulutraffic.com/ScopingReport.pdf

The second Notice of Intent did not even want comments on alternatives that were *"previously studied and eliminated for good cause."* While not named, one can reasonably assume it referred to the Managed Lane Alternative.

On March 18, 2007, we wrote to the FTA protesting that the process used by the City for assessing the Managed Lane Alternative in the Alternatives Analysis was flawed.[16] We also protested the issuance of two Notices of Intent to perform the same Draft EIS. We received no response to these communications.

Honolulu found itself in the strange position of beginning Scoping while having already selected its Locally Preferred Alternative.

The second Scoping Report that issued May 30, 2007[17] implies that the Managed Lane Alternative was rejected at least in part because,

> *The Honolulu High-Capacity Transit Corridor Project analysis is meant to evaluate project alternatives that may be constructed within the authorization of Act 247, enacted by the Hawai'i State Legislature in 2005. The act prohibits the construction of a non-transit project with the authorized excise-tax surcharge. Projects with the purpose of providing roadway mobility for automobiles and commercial vehicles are not fundable by Act 247; therefore, they will not be added to the purpose of the Honolulu High-Capacity Transit Corridor Project*[18].

However, this is the first mention of Act 247 through two Notices of Intent and two SIPs and the first Scoping Report. In any case, is this reason for rejection not in conflict with the following?

> *An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. Section 1506.2(d). Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies.*[19]

The second Scoping Information Package describes the Fixed Guideway Alternative as follows:

> *The fixed guideway system is planned to operate between 4 a.m. and midnight, with a train arriving in each direction at each station between every three and ten minutes ... The system is planned to operate with multicar trains approximately 175 to 200 feet in length, with each train capable of carrying a minimum of 300 passengers. This would provide a peak capacity of at least 6,000 passengers per hour per direction.*[20]

Since at this point the *de facto* decision to select trains as the preferred mode alternative had already been made, does not the issuance of a new Notice of Intent circumvent the requirement that NEPA *not be used to rationalize or justify decisions already made?*[21]

The second Scoping Report states,

As stated in the Notice of Intent issued on March 15, 2007, that Notice of Intent superceded [sic] the one published on December 5, 2005.[22]

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16 www.honolulutraffic.com/AAMLcomments5.pdf
17 http://www.honolulutraffic.com/NEPAScopingReport.pdf
18 The second Scoping Report, p. 5-1. Act 247 is at
19 http://www.nepa.gov/nepa/regs/40/1-10.HTM#2
20 Scoping Information Package. 4-1&2. http://www.honolulutraffic.com/ScopingInformationPackage.pdf
21 "Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made." 40CFR1502.2[g]

This is not true; the second Notice of Intent states no such thing.

The second Scoping Report also states that,

> *City Council Resolution 07-039 defined the First Project as extending from East Kapolei to Ala Moana Center.*[23]

Resolution 07-039 uses the term "Minimum Operable Segment" to describe the shortened project and never mentions "First Project"; the term in the second Scoping Report only serves to confuse the issue.

Also federal regulations require that, *"Draft environmental impact statements shall be prepared in accordance with the scope decided upon in the scoping process."*[24]

The first Notice of Intent was not superseded and the Alternative Analysis states that its alternatives were developed *"during a formal project scoping process held that would satisfy the requirements of the National Environmental Policy Act (NEPA) ... "*[25]

The second Scoping Information Package and the second Scoping Report suggest that the first Notice of Intent was to merely satisfy Hawaii Revised Statutes 343, even though there is no mention of that in either of the two federal Notices of Intent or the subsequent Scoping Report. In any case, that does not wash since, if satisfying Hawaii Revised Statutes 343 was the only intent of the first Notice of Intent, would not the FTA's issuance of it have been unnecessary?

In addition, this action by FTA would appear to violate 40CFR1506 which requires agencies

> *... to the fullest extent possible to reduce duplication between NEPA and state and local requirements.*

And NEPA §1500.6 makes it clear that,

> *The phrase "to the fullest extent possible" in section 102 means that each agency of the Federal Government shall comply with that section unless existing law applicable to the agency's operations expressly prohibits or makes compliance impossible.*

This requirement is, in part, to avoid the kind of time consuming and confusing situation we now have.

Neither the FTA nor the City has made any attempt to clarify why FTA issued the second Notice of Intent. While the first Notice of Intent initiated the NEPA review process, the second Notice of Intent informed us that the NEPA review was *"initiated through this scoping notice."* Have we not been in the NEPA process since December 2005? Why was a second scoping necessary?

The City did not make the case in the second scoping documents that re-scoping was being conducted because the first was inadequate or unsatisfactory. And if it had been inadequate would not the second scoping merely have been to supplement the first scoping and not to replace it?

There has obviously been insufficient *"public involvement,"* as required by SAFETEA-LU, if we cannot even find out whether the NEPA review process started on December 5, 2005, or March 15, 2007. Why cannot the public be told why the second scoping was authorized and if it invalidated the findings of the first Scoping?

We believe that the City and Parsons Brinckerhoff had the second Notice of Intent issued in an attempt to evade the more stringent investigative requirements of the NEPA process for the Managed Lane Alternative and possibly also for the purpose and needs statement.

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22 Second Scoping Report, p. 5-1, at http://www.honolulutraffic.com/NEPAScopingReport.pdf

23 Resolution 07-039. http://www4.honolulu.gov/docushare/dsweb/Get/Document-59472/23mk1ljh.pdf

24 40CFR1502.9.

25 www.honolulutraffic.com/AAD.pdf p. 2-2.

Six specific ways in which the Managed Lane Alternative was contrived to fail are listed below.

a) Zipper lane inexplicably removed:
b) Excessive Managed Lane Alternative capital costs:
c) Inflated operating costs:
d) Effects on vanpools not considered.
e) Inefficient ingress/egress ramps:
f) Avoidance of due diligence:

a) Zipper lane inexplicably removed

In November 2006, the City Council convened a Transit Advisory Task Force (Task Force) to advise it on the technical aspects of the Alternatives Analysis. Mr. David Glater, retired Chief Counsel of the U.S. Department of Transportation's Volpe Center, and Transportation Analyst for the Task Force, wrote in his Final Report to the City Council,

> *The description of the Managed Lane Alternative in Chapter 2 of the Alternatives Analysis states that, 'The H-1 zipper lane would be maintained in the Two-direction Option but discontinued in the Reversible Option.' (p. 2-4). However, no explanation is provided as to why the zipper lane would not be continued in the Reversible Option. The Managed Lane Reversible Option's addition of two Koko Head-bound elevated lanes for the morning commute appears to result in a net increase of only one lane if the inbound zipper lane were removed.*[26]

Why was the zipper lane taken out? When it remains in, it alone negates the conclusions of the Alternatives Analysis that the Managed Lane Alternative was inferior to rail in traffic congestion reduction as can be seen from the table below. With the zipper lane reinstated traffic on the H-1 freeway regular lanes would be less with the Managed Lane Alternative than the Fixed Guideway Alternative.

Congestion relief together with energy consumption, both of which are required to be analyzed by statute,[27] would be significantly improved with the Managed Lane Alternative. The following table is identical to the data in Table 3-12 in the Alternatives Analysis with the exception of the center column showing the zipper lane reinstated and a new line at the bottom of the page to total all traffic.

The only changes made to original column, which is to its left, are those in the grayed out cells. These reflect the same zipper lane traffic as in the Rail column and reduction of that same amount of traffic in the H-1 Freeway traffic. It shows that with the zipper lane reinstated the H-1 traffic is less than the traffic in the Rail Alternative.

For example, the single major freeway into downtown Honolulu from the far end of the study Corridor is H-1. It has seven lanes inbound during the morning peak hours, of which one is a zipper lane, one is an HOV lane, and five lanes are regular freeway lanes.

With the zipper lane reinstated the Managed Lane Alternative would provide two, or possibly three, additional lanes managed through dynamic pricing. Each lane would have a vehicle throughput close to twice that of each of the nearby congested freeway lanes.[28] Such lanes would add the equivalent of four to six lanes to the current (and projected through 2030) five regular freeway lanes (this is not provided for in the table that follows).

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[26] Task Force Final Report. http://www.honolulutraffic.com/TaskForceReport.pdf
[27] 119 STAT. 1576 (d) (3) (D) http://bulk.resource.org/gpo.gov/laws/109/publ059.109.txt
[28] FHWA Congestion Pricing Primer, www.honolulutraffic.com/congestionpricing.pdf

	2030 Managed Lanes			2030 Managed Lanes			Rail		
	Reversible Option			Reversible Option with the zipper lane reinstated			Kamokila - Airport - Dillingham King with a Waikiki branch		
SCREENLINE/FACILITY	Forecast Volume (vph)	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	Volume/ Capacity Ratio	Level of Service
Kalauao Stream Koko Head bound									
H-1 Fwy	18,419	1.94	F	16,235	1.71	F	17,414	1.83	F
H-1 Fwy (HOV)1	2,769	1.46	F	2,769	1.46	F	2,701	1.42	F
H-1 Fwy (Zipper) 1	NA	NA	NA	2,154	1.13	F	2,154	1.13	F
Moanalua Rd	966	0.57	A	966	0.57	A	756	0.44	A
Kamehameha Hwy	3,121	0.9	E	3,121	0.9	E	2,923	0.85	D
Managed Lane	3,457	0.79	C2	3,457	0.79	C2	NA	NA	NA
Total General Purpose Traffic	22,507	1.39	F	20,322	1.39	F	21,093	1.31	F
Total HOV Traffic	2,769	1.46	F	4,923	1.46	F	4,855	1.28	F
Total Managed Lane Traffic	3,457	0.79	C2	3,457	0.79	C2	NA	NA	NA
Total All Traffic	28,733			28,702			25,948		

The grayed cells are the only ones changed from the Alternatives Analysis, Table 3-12.

The Total All Traffic was not provided in the original. Others may wish to check our addition.

Changes made were to reinstate the zipper lane using vehicle data from the fully built out rail option.

Then reduce the H-1 Fwy forecast by a like amount. Other changes are merely recalculation of totals.

The congestion mitigation effects of these additional lanes to the seven-lane H-1 freeway are too obvious for the effect not to have been noticed during the Alternatives Analysis process.

b) Excessive Managed Lane Alternative capital costs

Parsons Brinckerhoff and the City grossly inflated the capital costs of the Managed Lane Alternative with the result that, if correct, it would result in it having twice the cost per lane-mile of any highway ever built in the U.S.

Parsons Brinckerhoff and the City also added unnecessary costs to the project by only using a 16-mile facility while not testing the viability of shorter 10 to 12-mile versions.

The City's projected cost of $2.6 billion in 2006 dollars for the Managed Lane Alternative was excessive. It was twice as expensive as the H-3 freeway per lane mile, almost as much per mile as the rail transit line, and seven times as much as the Tampa Expressway, a similar but even larger facility. And the City made it 50 percent longer than necessary. Further, the normal due diligence expected for a project of this magnitude was not undertaken.

Had the Managed Lane Alternative been projected at 11 miles long and priced to be the same as H-3 per lane mile (allowing for inflation), the projected cost would have been only $915 million (still twice as much as the Tampa Expressway). Of this amount half could have been paid for with toll revenue bonds and the other half with less than three years of the ½ percent GE tax revenues (assuming the unlikely scenario of Senator Inouye being unable to obtain any federal funds).

And the city did not study the effects of the Managed Lane Alternative having three lanes. Tampa added the third lane after finding that this 50 percent increase in lane space would cost only 20 percent more than two lanes.

Anyone who has ever travelled the H-3 will find it absurd that the City's cost estimate of the Managed Lane Alternative could be the same as the H-3 (inflation-adjusted). The City's projected costs for the Managed Lane Alternative were calculated without any attempt to justify this high cost by comparing it to similar facilities in Hawaii or on the Mainland.

As discussed earlier, our cost projection was $900 million for a 10-mile two-lane elevated highway, or $90 million per mile in 2002. This cost when inflated using the *Price Trends for Federal-aid Highway Construction Index*, [29] results in $134.7 million per mile in 2006 dollars.

However, this estimate was made before we were aware of the astonishing cost savings offered by the new construction method devised by Figg Bridge Company and used to construct the Tampa Expressway.

Tampa Expressway:

> *The actual contract price for the 17.5 lane miles of bridge structure was just over $100 million. At approximately $120 million, the deck cost for the segmental bridge portion of the project was approximately $65 per square foot, far below the average cost for structures in Florida during the past 20 years. The average cost per lane mile for the reversible bridge is approximately $7 million and is among the lowest for bridges constructed in the U.S.*[30]

The Figg Bridge Company tells us they "*have experienced savings of approximately 40 percent to 50 percent when using precast segmental span-by-span construction in urban settings when compared to segmental balanced cantilever construction.*"[31]

Using 45 percent as the average of these savings reduces our $134.7 million per mile projection to $74.1 million per mile in 2006 dollars, or $37.0 million per lane-mile.

Recently Figg Bridge, which is familiar with Hawaii conditions, told us they believe there is no reason why the Managed Lane Alternative should not be built for the same cost per mile that they are experiencing in Florida for 2008 given the addition of a further 32 percent for the construction cost differential between Hawaii and Florida.

The 14-mile Expressway cost $320 million in 2006 (net of an impending award of $100 million for a sub-contractor's error). Using the same *Price Trends for Federal-Aid Highway Construction Index* that the City uses, and allowing the mid-point of costs to be 2004, we calculate that the cost to build it in 2006 would have been $458.7 million.

The cost comparison index used to inflate Florida construction costs to Hawaii's level is an additional 32 percent, that being the rate given in the current *Civil Works Construction Cost Index.*[32] Applying this factor to the inflation adjusted cost, results in $605 million as the cost of constructing the facility in Honolulu. Dividing this by its 14-mile length results in $43.2 million per mile.

While Tampa has three lanes, the Expressway Authority tells us that the third lane only added 20 percent more to their costs than if they had only built two lanes. We have, therefore, divided the Tampa cost per mile by only 2.4 instead of three to arrive at a cost for a two-lane facility. It

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29 http://www.fhwa.dot.gov/programadmin/pt2006q4.cfm

30 Prevedouros, Panos D., PhD and Martin Stone, PhD, AICP. *Reversible Express Lanes.* Yearbook of Science and Technology 2008. McGraw-Hill, pp. 288-291, 2008.

31 Personal Communication, CEO, Figg Bridge Company.

32 http://www.usace.army.mil/publications/eng-manuals/em1110-2-1304/entire.pdf p. A-34.

results in a cost of $18.0 million per lane-mile as a comparable cost for building such a facility in Honolulu.

Hawaii's H-3 Freeway:

The 16.1-mile H-3 freeway is a divided highway with two lanes in each direction and its construction required boring two miles of tunnels through the solid rock of the Koolau Mountains. The total cost was $1.3 billion at completion in 1997 making it the most expensive highway per mile ever built in the U.S.

Lacking a distribution of costs by year, we have allowed the mid-point of construction cost as occurring in 1991. Inflating the $1.3 billion to 2006 dollars using the *Price Trends for Federal-Aid Highway Construction Index*[33], results in $2.7 billion.

This amount divided by the 16.1 mile length equals $166.2 million per mile and dividing that by the four lanes results in $41.6 million per lane-mile.

Capital costs summary:

We show below an adjusted cost per lane-mile comparison with two highway facilities, one from Tampa, Florida and the other, the H-3 freeway in Honolulu together with both the City and our Managed Lane Alternative cost projections.

The table below summarizes our calculations of all four facility costs per lane-mile after being adjusted for construction inflation costs and location cost differentials. This enables us to directly compare one with the other. The full calculation is given in detail in Appendix A.

Adjusted cost per lane-mile in 2006 dollars[34]	
Facility	**$millions**
Tampa Expressway actual, adjusted to Honolulu costs	$18.0
H-3 Freeway actual, adjusted	$41.6
Our Managed Lane Alternative estimate, adjusted	$37.0
City's Managed Lane Alternative estimate	$80.5

Note that our Managed Lane Alternative estimate is within ten percent of the adjusted H-3 freeway cost. In consideration of the extensive trans-Koolau tunneling required for H-3 one would anticipate that our Managed Lane Alternative estimate should be somewhat less.

Even allowing for inflation and location cost differences, the adjusted Tampa Expressway cost is still less than half of either the H-3 or our Managed Lane Alternative estimate.

However, the most striking comparison is that the City Managed Lane Alternative estimate is twice that of the H-3 freeway and over four times that of the Tampa Expressway — after all adjustments. We do not believe that this projected cost would ever pass scrutiny by any members of the professional engineering community.

Our cost calculations for the Managed Lane Alternative, while compelling, need more work at a level of detail requiring resources that are not available to us. Our concern is that the City and Parsons Brinckerhoff did not make any serious effort to investigate it at any level of detail, as the section of lack of due diligence demonstrates.

At the behest of FTA, Booz Allen investigated the Fixed Guideway Alternative and the Managed Lanes Alternative construction costs. They produced a preliminary 8-page draft in April 2007 and later followed that in May 2007 with a 38-page full report.[35]

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[33] http://www.fhwa.dot.gov/programadmin/pt2006q4.cfm

[34] See Appendix A for details of cost adjustments for construction inflation and location differences.

[35] FTA PROJECT MANAGEMENT OVERSIGHT PROGRAM, Contract No. DTFT60-04-D-00013 Project No. DC-27-5041 Task Order No. 10

The 8-page draft does mention the Tampa Expressway and also Dr. Stone's comments,

> *Dr. Marty Stone [PhD AICP], planning director for the Tampa-Hillsborough County Expressway Authority, wrote a lengthy defense of the construction of his agency's reversible, elevated toll lanes in Tampa for HawaiiReporter.com on November 21, 2006. Dr. Stone criticized rail proponents in Honolulu for what he perceived as misrepresentation of the Tampa project in order to discredit the managed-lanes alternative in Honolulu.*

However, neither Tampa nor Dr. Stone appear in the subsequent full report. This is a shame because it would have been interesting to know why an award-winning public planning official would go out on a limb to criticize fellow public officials.

The full report begins by telling us that the primary objective was to, *"confirm absence of bias in cost estimation between the Fixed Guideway and Managed Lanes alternatives."* Not to determine whether there was any bias, but rather to confirm that there was none.

Booz Allen's 38-page report covers a wide variety of cost estimating material but evades a very important and most awkward fact, and that is the cost of the Tampa Expressway was $300 million.

The investigator does not grapple with this fact; the word Tampa cannot be found in this document. The group that put together the expressway, the Tampa-Hillsborough Expressway Authority and Figg Bridge have won just about every national award possible[36] and built it at a remarkably low cost.

The Tampa cost is a stubborn and intractable fact, one that will never go away until rail proponents confront it instead of evading it as the City has, as the Transit Advisory Task Force did and as Booz Allen does in this case.

To be credible an assessment of the Managed Lane Alternative costs must be performed with "scientific accuracy" and has to reconcile the $300 million for the Tampa Expressway (even to include the $120 million error) with a similar project in Honolulu for $2.6 billion. Allowance can be made for construction costs inflation, location differences, and other smaller issues but an honest appraisal is unlikely to be able to bridge this widest of chasms.

A credible assessment could start by talking to Figg Bridge to ask them how they did it and whether it could be done in Hawaii. No one involved in the pricing, and the validation of the pricing, of the Managed Lane Alternative — the City, the Council Task Force, or Booz Allen — has ever contacted Figg Bridge.

c) Inflated Managed Lane Alternative operating costs

Parsons Brinckerhoff and the City also inflated Managed Lane Alternative operating costs to make the project appear uncompetitive with the Fixed Guideway Alternative.

The Alternatives Analysis had forecast that operating costs for the Managed Lane Alternative would be greater than the FGA. These high operating costs occur because,

> *Transit operating costs for the Managed Lane Alternative would range between approximately $251 and $261 million as a result of additional buses that would be put in service under that alternative.*[37]

The Alternatives Analysis projects that the Managed Lane Alternative will need a fleet of 906 buses versus the No-Build Alternative requiring 614 buses.[38] This would result in the Managed

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[36] http://www.tampa-xway.com/documents/Awards/REL%20Awards.pdf

[37] Alternatives Analysis, page S-4, at: http://www.honolulutraffic.com/AAD.pdf

Lane Alternative having 50 percent more buses than the No-Build Alternative yet the City projects only 5 percent greater ridership for it.[39] This small increase is projected despite the Managed Lane Alternative offering bus users the advantage of a congestion free bus ride from the H-1/H-2 merge to Downtown. It begs the question, why would the Managed Lanes Alternative offering much faster bus service than the No-Build not generate many more riders?

Fundamentally, the Managed Lane Alternative provides the existing bus system with a faster method of transiting the Corridor. Buses would be able to travel Koko Head bound in the AM peak on the Managed Lane Alternative at three times the current 20 mph operating speed of buses on the H-1 freeway. Buses can then return to their original departure point via the H-1 freeway in the Ewa Bound direction in relatively uncongested traffic.

This will allow some express buses to make two round trips in the time it presently takes to make one. One might anticipate that such efficiency would allow a considerable increase in ridership to be achieved at about the same operating costs as is experienced *currently*, allowing for inflation.

Instead, the Alternatives Analysis forecasts that the Managed Lane Alternative would require the operation of 48 percent more buses[40] than the No-Build Alternative while carrying only five percent more trips[41] and that this would cost 36 percent more in operating costs than the No-Build and even more than the FGA.

In addition, the Alternatives Analysis projected a totally unnecessary 5,200 parking stalls for the Managed Lane Alternative, only slightly less than the 5,700 stalls projected for the entire rail line other than a pro-rata increase in the 529 stalls presently available, nor is there any need for bus stations on Managed Lane Alternative.[42]

The City's and Parsons Brinckerhoff's plan has been to simply drive up operating costs to project that the Managed Lane Alternative is uneconomical in comparison with rail transit.

d) Effects on vanpools not considered.

The same benefits accruing to buses, including and freedom from toll charges, will also apply to vanpools. Such travel time savings can increase bus and van ridership and decrease both the amount of traffic and the share of low occupancy vehicles.

Vanpools have by far the lowest use of energy of any form of mechanized transportation using only 1,322 BTUs per passenger mile.[43] That is less than one-third of that used by the unweighted average of rail transit lines and so offers a significant opportunity to reduce energy use, reduce emissions, reduce traffic congestion, and since vanpools require no operating subsidy, an opportunity to reduce TheBus operating losses.

e) Ingress/egress insufficiently studied

Parsons Brinckerhoff and the City engineered the ingress and egress ramps in a way that could only result in heavy traffic congestion at the Koko Head end of the Managed Lane Alternative.

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38 Alternatives Analysis, Table 2-1, at: http://www.honolulutraffic.com/AAD.pdf

39 The bus fleet data is taken from the Alternatives Analysis, Table 2-1, and the daily trips data from the Alternatives Analysis, Table 3-7. The percentages shown are calculated from these data. At: http://www.honolulutraffic.com/AAD.pdf

40 Alternatives Analysis, Table 2-1.

41 The bus fleet data is taken from the Alternatives Analysis, Table 2-1, and the daily trips data from the Alternatives Analysis, Table 3-7. The percentages shown are calculated from these data.

42 Alternatives Analysis, pp. 3-7/8 and 3-10, at: http://www.honolulutraffic.com/AAD.pdf

43 U.S. Dept. of Energy Data Book, table 2.12, at: http://cta.ornl.gov/data/tedb27/Edition27_Chapter02.pdf

The Task Force Report, Appendix 3,[44] contains the following statement,

> *In its discussion of travel time benefits of the Managed Lane options, the Alternatives Analysis projects that traffic congestion at both the H-l Freeway access to the Managed Lane facility and at the Nimitz Highway exit at Pacific Street will negate travel time benefits gained from travel on the Managed Lane facility itself. The Analysis should explore how traffic congestion at these points could be alleviated (at least for mass transit vehicles) in order to enhance the overall performance of this Alternative as a transit guideway.*

Parsons Brinckerhoff made no discernible effort to apply its engineering competence and ingenuity to the question of ingress and egress for the Managed Lane Alternative in the Alternatives Analysis.

In his letter to the City, copied to the Federal Transit Administration (FTA), Dr. Panos Prevedouros, Professor of Traffic Engineering at the University of Hawaii, Chair of the Transportation Research Board's Highway Micro-simulations Committee and himself a member of the Task Force, commented,

> *"... the most egregious violation of FTA's rules on alternative specification and analysis was the deliberate under-engineering of the Managed Lanes Alternative to a degree that brings ridicule to prevailing planning and engineering principles."*[45]

Dr. Prevedouros in his micro-simulation studies of differently designed entry and exit ramps for the Managed Lane Alternative shows that with properly designed ramps[46] traffic congestion can be reduced and excessive traffic congestion would not occur even during peak-hour traffic.

f) The City's lack of due diligence

The Task Force consisted of seven individuals to advise it on the Alternatives Analysis. Kazu Hayashida, a former Director of the Hawaii Department of Transportation (HDOT), was appointed Chairman.

In turn, the Chairman appointed two members to be a Technical Review Subcommittee to review construction costs. One had been a long time senior employee of the Hawaii State Department of Transportation (HDOT) and the other was the recently retired Director of Honolulu's City Department of Transportation Services and a former HDOT Director. Neither one had the expertise to judge construction costs in detail especially for a project of this magnitude and complexity.

After the Subcommittee's first report to the Task Force that they believed the projected Managed Lane Alternative costs in the Alternatives Analysis to be reasonable, we asked the subcommittee members for a list of the companies they had contacted. We believed there needed to be a detailed reconciliation between the Tampa Expressway cost (less the design error) of $320 million and the Parsons Brinckerhoff estimate of $2.6 billion for the Managed Lane Alternative. They told us they had only talked to the local office of Parsons Brinckerhoff, which had produced the projections, and had been assured that the cost estimates were reasonable.

They talked subsequently to engineers at the Hawaii Department of Transportation who told them that the 36-foot wide Managed Lane Alternative would need eight-foot supporting piers, totally ignoring the fact that the 59-foot wide Tampa Expressway has only six-foot piers. They mention that most agencies on the Mainland use $100 to $200 per square foot to price elevated highways but since they had not talked to Figg Bridge they would not know that they quote slightly less

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44 Attached as Appendix B.
45 www.honolulutraffic.com/NEPAScopingReport.pdf p. A-180
46 http://www.honolulutraffic.com/UHCS_Report41.pdf p. 39.

than $100. Meanwhile they say that the State DOT uses $400-$500 per square foot but gives no sensible explanation of why that should be.

A project involving billions of dollars should be expected to receive reasonable due diligence on the part of the City Council's Task Force. To the contrary, there was little, if any, performed.

Accordingly, we suggested a consultation with the Tampa Expressway Authority and with PCL Construction Services, Inc., which had built both the Tampa Expressway and the Hawaii Convention Center, and maintained offices in both Tampa and Honolulu and would be familiar with the costs and construction difficulties in both cities.

We also suggested they contact the Figg Bridge Company who had designed the Tampa Expressway incorporating its new low-cost construction methodology. One of the subcommittee members made a single, short phone call to the Tampa Expressway Authority; no one contacted PCL or Figg Bridge.

Dr. Martin Stone, AICP, Director of Planning, Tampa-Hillsborough Expressway Authority, whose project won the International Bridge, Tunnel and Turnpike Association's 2007 Award for the Best Toll Operations Project in the World, told them that the City's cost estimate was too high but they obviously did not follow up with that.

When one considers that Parsons Brinckerhoff maintains its national bridge practice in Tampa and actually designed a part of the Tampa Reversible Express Lanes project one would think that they should have been contacted also but it is our understanding that they were not. The Subcommittee report was made part of the Task Force Final Report.[47]

The Task Force Final Report makes it clear that there was inadequate study of the Managed Lane Alternative.

> *"... the Alternatives Analysis should have presented variations on the Managed Lane Alternative that could make this alternative more attractive. Appendix 3 contains suggestions for fleshing out possible variants of the Managed Lane Alternative."*[48]

The Report's Appendix 3, "*Suggestions for further development of the Managed Lane Alternative*," written by the former Chief Counsel of the USDOT's Volpe Center, David Glater, acting as the Transportation Analyst for the Task Force, concurs in finding an under-engineering of the Managed Lane Alternative by producing the list of suggested modifications attached as our Appendix B.[49] From this it is obvious that Mr. Glater anticipated these modifications to be adopted in the Draft EIS process.

The City and Parsons Brinckerhoff ignored these and all other the recommendations of the Task Force regarding the Managed Lane Alternative and omitted from the Draft EIS any mention of the Task Force, or its Final Report, or the highly relevant questions it posed..

We believe this cavalier attitude on the part of the City regarding due diligence violates the rule that,

> *The Council on Environmental Quality (CEQ) requires the data and analyses in an EIS are commensurate with the importance of the impact.*[50]

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47 www.honolulutraffic.com/TaskForceReport.pdf
48 Task Force Final Report. p. 4/7
49 www.honolulutraffic.com/TaskForceReport.pdf pp. A-32 to A-33. Appendix 3 also attached as our Appendix B
50 40CFR1502.15

Subsequent to the Alternatives Analysis process, a micro-simulation study undertaken by Dr. Prevedouros and his students concluded that,

> *[The Managed Lane Alternative] would reduce H-1 congestion by 35%, reducing drive times from 4 to 22 minutes. An express bus commuter would make the same trip in 12.7 minutes. The greatest benefit of HOT lanes would accrue to those who never use them; they would pay no added taxes or tolls yet would experience dramatically reduced congestion.* [51]

g) Summary of the case for reinstating the Managed Lane Alternative in the EIS:

> *Methodology and scientific accuracy. Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement. An agency may place discussion of methodology in an appendix. (40CFR1502.24)*[52]

The Draft EIS and its accompanying technical memoranda offer no evidence that the City and Parsons Brinckerhoff ever undertook to "*rigorously explore and objectively evaluate*"[53] the Managed Lane Alternative as required by NEPA.

> *Environmental impact statements shall be concise, clear, and to the point, and shall be supported by evidence that agencies have made the necessary environmental analyses.* [54] *(emphasis added)*

We ask that the FTA require the City re-assess the Managed Lane Alternative in a Supplementary Draft EIS using a less "client focused" and more independent consultant. Such an independent re-evaluation should perform the following:

1. The requisite due diligence a project of this magnitude warrants.
2. Have qualified cost estimators reconcile and document in detail the difference between the City's Managed Lane Alternative cost projections and the actual costs of similar facilities in Florida and determine the reasons for the differences between them.
3. Project the outcome of using three-lanes rather than two for all or part of the facility.
4. Project the outcome of distributing Koko-Head bound traffic by way of egress ramps in a manner similar to that shown in Professor Prevedouros' UHCS study.
5. Project the outcome of following the suggestions made in Appendix 3 of the Task Force Report.

If this is done the EIS will meet the requirements of this particular directive:

> *During the draft EIS stage all reasonable alternatives, or the reasonable range of alternatives, should be considered and discussed at a comparable level of detail to avoid any indication of a bias towards a particular alternative(s).*[55]

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[51] *Transportation Alternatives Analysis for Mitigating Traffic Congestion between Leeward Oahu and Honolulu: A Detailed Microsimulation Study.* (UHCS Study) Directed by Professor Panos D. Prevedouros with the Participation of Undergraduate and Graduate Students Specializing in Transportation Studies. University of Hawaii. 2008.

[52] http://edocket.access.gpo.gov/cfr_2008/julqtr/pdf/40cfr1502.24.pdf

[53] 40CFR1502.14

[54] 40CFR1500.2(b)

[55] http://www.environment.fhwa.dot.gov/projdev/tdmalts.asp

In addition the U.S. Secretary of Transportation has responsibilities under 49USC5309(d)(3),

> *... for a major capital investment grant, the Secretary shall analyze, evaluate, and consider*
>
> *(A) the results of the alternatives analysis and preliminary engineering for the proposed project;*
>
> *(B) the reliability of the forecasting methods used to estimate costs and utilization made by the recipient and the contractors to the recipient;*

The Alternatives Analysis was legally insufficient and without a reinstatement of the Managed Lanes Alternative and a more rigorous and scientific assessment of its benefits in a Supplementary Draft EIS, how can the Secretary possibly make a reasoned judgment?

The importance to the people of Honolulu of thoroughly evaluating all reasonable alternatives as required by NEPA is that one or more of the alternatives may offer an opportunity at reasonable cost to provide mobility without needing to construct an elevated rail line along the Honolulu waterfront and through the center of town.

> *(e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.*[56]

Virtually all of Hawaii's environmental organizations are opposed to elevated rail running through the core of the city of Honolulu with all the concomitant visual blight and noise disturbances that it brings. We need to avoid such an environmental disaster if at all possible.

2. Use of the 2003 BRT Project

With some fairly minor modifications the 2003 Bus/Rapid Transit Project, as fully described in the July 2003 Final Environmental Impact Statement,[57] is a "reasonable alternative" that should have been considered in the current Draft EIS since with its projection of 313,000 daily linked trips, it was forecasting higher ridership than the current rail project for less than $1 billion in capital costs.[58]

The State's objection at that time to the Regional segment of the Project appears to have evaporated since they have been recently considering changes to H-1 similar to those contemplated in the 2003 FEIS.

Objections to the In-Town segment could easily be mitigated by adoption of the King/Beretania transit couplet described in Dr. Prevedouros' UHCS study. The In-town segment's time savings for the Downtown to Waikiki trip projected in the 2003 FEIS were inconsequential and should not affect the project's overall cost-effectiveness.

3. The EZway Plan

The basic goals of the EZWay plan are to provide:

a) Substantial congestion relief largely caused at the H-1/H-2 and H-1/Moanalua freeway merges by adding critical high occupancy capacity,
b) Express bus mass transit primarily in the west Oahu to downtown corridor.
c) Traffic relief at other major congestion spots in Honolulu; and,
d) Express transit connections to the University of Hawaii at Manoa.

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[56] http://www.nepa.gov/nepa/regs/ceq/1500.htm §1500.2(e)
[57] http://www.honolulutraffic.com/feis_all_files.pdf
[58] http://www.honolulutraffic.com/feis_all_files.pdf p. 34.

The EZWay plan extends the transit service requirement of rail by providing a wider coverage, combines strong elements of managed lanes without the use of tolls, and takes advantage of the extensive experience of running bus public transit on Oahu and the Regional BRT plan of 2001-2003. The basic elements of the plan are outlined below and discussed in brief.

The EZWay consists of:

1. three elevated reversible lanes from the H-1/H-2 merge to Iwilei, with a priority BRT from downtown to the UH,
2. express buses having exclusive use of freeway shoulders in order to travel at near free flow speeds from/to the EZWay,
3. a downtown underpass for efficient downtown traffic distribution, and
4. a new Auahi Street transit center for west Oahu bus passenger distribution to Kakaako, Ala Moana and Waikiki.

(1) The EZWay structure is a fully managed expressway facility that can be described as three reversible elevated zipper lanes starting at the H-1/H-2 merge and terminating at Pier 16 with off-ramps at Aloha Stadium/Pearl Harbor, Lagoon Drive and Waiakamilo Street. The right lane is an exclusive bus lane throughout the length of the facility. At Iwilei, one elevated lane goes to Hotel St. to connect with King/Beretania BRT (University spur BRT). University BRT runs on priority lanes and with priority signaling along King and Beretania Streets.

The EZWay will open with a minimum occupancy requirement of three people per vehicle. This requirement may be increased in the future to avoid congestion. No tolls will be collected. Automated steep fines applied to low occupancy violators. No trucks allowed at any time. Open to all emergency vehicles at all times. Open to green vehicles with greater than 35 mpg EPA highway fuel consumption. This threshold is also subject to change in order to maintain at least 50 mph speeds in peak periods. Therefore, usage on the EZWay is controlled macroscopically, by occupancy and fuel efficiency requirement, rather than microscopically by electronically incrementing tolls.

(2) Kapolei and Ewa Beach Bus Rapid Transit (BRT) connectors to Waipahu: Hybrid or fuel cell buses will be allowed to use shoulders on on-ramps and a few elevated passages or priority lanes at intersections (queue jumpers) which allow them to get by chronically congested spots. Includes a Waipahu (Farrington Hwy.) on-ramp to/from the EZWay.

Express buses from Waianae and Makakilo may use upgraded H-1 freeway shoulders to get to the EZWay quicker. The same priority treatment applies to express buses from Mililani and Wahiawa.

(3) Ala Moana Blvd. Downtown Underpass (mini-tunnel) starting east of River Street and ending both at Alakea Street and Halekauwila Street. Same tunnel reverses in the PM period from Halekauwila Street and Bishop Street to Nimitz Hwy. contraflow lane onto the elevated zipper lanes. The underpass may continue to large new parking lot(s) east of Punchbowl Street. As a result, a large portion of vehicular traffic may "disappear" from downtown by going from the EZWay, through the mini-tunnel directly into a parking structure, one block east of Punchbowl Street.

(4) New Ward Centers bus terminal on Auahi Street. Express buses that arrive from the EZWay stop at this terminal and either return to origin, or continue as regular bus to Ala Moana Center. Contracted tour buses may be deployed at this terminal for direct worker distribution to Waikiki hotels.

Appendix A

Ours and the City's projected costs for the Managed Lanes Alternative versus the Tampa Expressway and the H-3 Freeway — in millions of dollars.

Tampa Expressway			
	Cost index		
2001	144.8	$320.0	original cost
2006	221.3	$489.1	inflated using construction cost index
+32%		$645.6	to allow for Florida/Hawaii cost change
	length	14.0	Miles
		$46.1	Cost per mile
	Lanes	2.4	
		$19.2	Cost per lane/mile based on 2 lanes

H-3 Freeway			
Year	Cost Index	Real cost	
1991	107.5	$1,300	Original Cost
2006	221.3	$2,676	Allowing for Construction inflation
	Length	16.1	Miles
		$166	Cost per mile
	Lanes	4	
		$42	Cost per lane mile

City's Managed Lane Alternative projected cost			
Year		Real cost	
2006		$2,572	
	Length	16	miles
		$161	Cost per mile
	Lanes	2	
		$80	Cost per lane mile

Honolulutraffic.com Managed Lane Alternative projected cost			
Year		Real cost	
2006		$900	
	Length	12	miles
		$75	Cost per mile
	Lanes	2	
		$38	Cost per lane mile

Adjusted cost per lane-mile	
Facility	$millions
Tampa Expressway	$19.2
H-3 Freeway	$42.0
Our MLA estimate	$38.0
City's MLA	$80.0

All construction cost inflation is corrected using the PRICE TRENDS FOR FEDERAL-AID HIGHWAY CONSTRUCTION available at:

Appendix B

TRANSIT ADVISORY TASK FORCE

c/o Honolulu City Council
530 5. King Street, Room 202
Honolulu, HI 96819
Phone: (808)523-4139

Appendix 3

Suggestions for further development of the Managed Lane Alternative.

- The Alternatives Analysis' description of the characteristics of the Managed Lane Alternative should provide more complete information as to mass transit operations utilizing this facility. The Alternatives Analysis States that new express and other bus transit routes would be developed for operation on the Managed Lane facility. (p. 2-4) A fuller development and presentation of the transit services that would accompany the Managed Lane Alternative would be helpful (e.g., routes, new/existing stations). There is no description in the Alternatives Analysis of any proposed supportive operational practices off of the Managed Lane facility that would complement the facility's use as a transit guideway, e.g., transit stations connected to park-and-ride facilities, reserved lanes for transit vehicles on existing streets, traffic signal priority for transit vehicles.

- In its discussion of travel time benefits of the Managed Lane options, the Alternatives Analysis projects that traffic congestion at both the H-l Freeway access to the Managed Lane facility and at the Nimitz Highway exit at Pacific Street will negate travel time benefits gained from travel on the Managed Lane facility itself. The Analysis should explore how traffic congestion at these points could be alleviated (at least for mass transit vehicles) in order to enhance the overall performance of this Alternative as a transit guideway.

- The description of the Managed Lane Alternative in Chapter 2 of the Alternatives Analysis states "The H-1 zipper lane would be maintained in the Two-direction Option but discontinued in the Reversible Option." (p. 2-4). However, no explanation is provided as to why the zipper lane would not be continued in the Reversible Option. The Managed Lane Reversible Option's addition of two Koko Head-bound elevated lanes for the morning commute appears to result in a net increase of only one lane if the inbound zipper lane were removed.

- The foldout photographic plans presenting the Managed Lane Alternative (Alternatives Analysis, Figures 2 - 1 and 2 - 2) do not clearly depict the ramp lanes necessary to access the Managed Lane facility from Interstate Highways H-l and

H-2 in both the Two-direction Option and the Reversible Option, or the ramp lanes necessary to exit from the facility to these Interstate Highways.

- These plans show an approximately one-mile long "facility" in the vicinity of Kaonohi Street (Figure 2 - 1), and another in the vicinity of Radford Drive (Figure 2 - 2), however no description of these facilities is provided. In discussions with DTS Administration staff, these facilities have been identified as transit stations with attendant deceleration and acceleration lanes. Assuming this to be the case, it would be helpful to see the proposed location(s) of park-and-ride facilities planned near these stations, comparable to the information presented in Table 3 - *5,* with respect to the Fixed Guideway Alternative. It is not apparent whether the stations would operate in both the Two-direction Option and the Reversible Option. What are the cost implications of adding access/exit ramps for transit vehicles instead of building elevated transit stations?

- Figure 2 - 2 shows a small section of the Managed Lane facility approximately 2000 feet Koko Head of the end of the facility at Nimitz Highway/Pacific Street. This component of the Managed Lane facility is not explained. Is it an elevated structure or at-grade? Which Managed Lane users would be allowed to access it?

- Figure 2 - 1 shows two ramps in the vicinity of Aloha Stadium. It is not clear whether these ramps would be available in both the Two-direction Option and the Reversible Option, or whether these ramps would be available to other than transit vehicles (e.g., to vans, three-person and two-person automobiles, and/or single-occupant automobiles paying tolls).

See also Financing Committee's report discussing changes in permitted access to the Managed Lane facility that might make the facility eligible for New Starts and/or GET ½% surcharge funds.

February 6, 2009

Part II — Insufficient consideration of elevated rail impacts

> *Use all practicable means, consistent with the requirements of the Act and other essential considerations of national policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment. 40CFR1500.2.*[1]

At the heart of this issue is that of the environmental harm of an elevated rail transit line thirty feet wide at an average of 35 feet elevation accommodating trains every 1½ minutes (three minute intervals in both directions) during the peak commuting time and three minutes at other times traversing the entire center of urban Honolulu including the waterfront.

The effect of elevated rail on the built environment has not been adequately addressed in the Draft EIS. The following requirement that there be discussions about the built environment is not fully addressed.

> *Urban quality ... and the design of the built environment including the reuse and conservation potential of various alternatives and mitigation measures.*[2]

Many environmental organizations have gone on record as being opposed to such an elevated structure. The following are some quotes from their recent statements on elevated rail:

> ***Outdoor Circle:*** *The lack of specific descriptions of how to overcome the visual misery that will be heaped upon the O'ahu landscape leaves our organization with little confidence that damages to the visual environment can or will be mitigated as the project moves forward ... Of equal concern to The Outdoor Circle is the pending fate of literally hundreds of street trees. Honolulu has fostered a worldwide image of being a city full of beautiful trees. It's an important part of Honolulu's appeal to both residents and visitors ... The Outdoor Circle believes the City has deceived the public about the visual impacts the project will have on our communities and our quality of life.*
>
> ***Historic Hawaii Foundation:*** *The proposed Honolulu Transit Corridor project will have a dramatic impact on the landscape of the island of O'ahu; this includes not only the direct impact to specific parcels, but primarily the visual effect on the landscape and historic resources. HHF is concerned that the Draft EIS does not accurately take into account these larger impacts, but rather focuses on those adverse effects caused by the direct taking of land.*
>
> ***Hawaii's Thousand Friends:*** *Elevated fixed rail routes will negatively impact the established landscape of Honolulu and significant view planes makai to mauka ... The rail line will be the ugly and block views with concrete rail beds 30-feet wide supported by pillars that are 35-40 feet high and six feet in diameter spaced at 150 feet intervals.*
>
> ***Hawaii Architects position****: ... the proposed elevated rail structure will block mauka and makai view corridors particularly along Nimitz Highway through historic Chinatown and Downtown ... Elevated rail stations and structures along the waterfront will make a poor situation worse by introducing an additional physical and visual barrier ... We are concerned that the areas below elevated rail structures and stations will become*

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1 http://www.nepa.gov/nepa/regs/ceq/1500.htm §1500.2(f) See also 49 USC 5301(e) and 42 USC § 4321
2 40CFR1502.16(g)

AR00134879

> *blighted, "nuisance" environments and that the lack of natural public sightlines into stations will diminish safety and security for passengers waiting on platforms. The proposed elevated platforms and concourses will also impede convenient access for both able-bodied and disabled users.*

We believe that elevated rail violates the Oahu General Plan, which states, in part, we must,

> *Protect Oahu's scenic views, especially those seen from highly developed and heavily traveled areas & Locate roads, highways, and other public facilities and utilities in areas where they will least obstruct important views of the mountains and the sea.*[3]

We believe there has been inadequate consideration of the detrimental effects of elevated rail. What has happened in other communities that once had an El, such as New York's 3rd Avenue El? What are the detrimental impacts of the elevated sections of Miami's Metrorail and San Juan's Tren Urbano? What happened in San Francisco when they removed the Embarcadero Freeway segment?[4]

It should be noted that the Managed Lanes Alternative and the other suggestions for alternatives, the 2003 Bus/Rapid Transit proposal, and the EZWay plan, do not propose any elevated structures through the urban core or in residential areas or along the waterfront. We believe that had these other alternatives been objectively studied as required by NEPA that one of them would have been the "environmentally preferable alternative."

> *The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.*[5]

As was also commented on by the Corps of Engineers:

> *... the overall project purpose is used for evaluating practicable alternatives under the Guidelines, which require that if the overall purpose of a project is practicably met through several alternatives, the Corps can only authorize the least environmentally damaging practicable alternative.*

City renderings misrepresent reality

We asked a professional commercial artist with experience in streetscape renderings to comment on those renderings shown in the Draft EIS on pages 4-65 through 4-84. Following are their comments:

> *In nearly every rendering, the cast shadows have been deemphasized, making the project appear much less impactful. They show shadows, but do not show the correct size and extension to match the existing shadow reach (shown by other objects in the photo), or especially darkness. This has a significant psychological effect, and they use it to the extreme.*
>
> *The shadows on the structures themselves have also been deemphasized to give the appearance of blending into the scene, which is also a distortion. They make extensive*

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3 Oahu General Plan, III, Objective B, policies 2 & 3. http://honoluludpp.org/planning/GeneralPlan/GP3.pdf

4 NEPA implementing regulations provide that "[e]nvironmental impact statements shall be concise, clear, and to the point, and shall be *supported* by evidence that agencies have made the necessary environmental analyses" (40 C.F.R. § 1500.2(b)) [emphasis supplied].

5 Council on Environmental Quality's 40 Questions and Answers..http://ceq.hss.doe.gov/nepa/regs/40/1-10.HTM 6(a)

use of a 'white' concrete appearance. Is that a correct material they will use? Even if so, the shadows will be significantly more prominent.

Their choice of view locations/angles is carefully done, of course.

The width of the guideway and its vertical thickness are smaller than what the actual plans call for. Many of the support columns are quite obviously slimmer than they should be.

They are showing support columns on thin grassy strips of median with virtually no 'buffer' between the median curb and the pillar itself. That is not legal.

One of the Dillingham shots (DEIS, fig 4-27) shows a pillar resting directly in the right turn lane. I'm thinking that may be a no-no.

These also do not properly indicate the foliage that will be removed.

The Dillingham shot similar to our rendering talks about trees 'softening' the visual impact, but they don't mention the trees that will be removed on the Mauka side of the street. The angle they use disguises it. The Fort Street Mall shot is a joke. They positioned the shot to put as many trees as possible in the view line.

The photos and renderings on the following pages illustrate our concern with the impacts of elevated rail along the waterfront and through the center of Honolulu:

Our artist carefully calculated the appropriate support column and rail bed widths and added the barriers necessary to protect the support piers. The City's version is below and the differences are obvious; the dimensions are smaller and the structure appears less intrusive. On all City renderings (Draft EIS pp. 4-65 to 4-84), the environmental impacts are deliberately minimized.

Figure 4-28 Viewpoint 12—Dillingham Boulevard near Honolulu Community College and Kapālama Station Area, looking `Ewa

Our artist's rendering of the Varsity Station on University Avenue looking mauka.

Our artists rendering of the sound mitigation panels to be used along Dillingham Blvd.

The City's renderings fail to convey overhead rail's effects on light.

The Aloha Tower station from the City's video of it available on their website.

Photo of straddle bent supports under a New York highway. Notice that in the City rendering below how the sheer ugliness of straddle bent supports is minimized.

Figure 4-36 Viewpoint 20—Mother Waldron Park near Halekauwila Street/Cooke Street Intersection, looking `Ewa

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Part III — The Locally Preferred Alternative must be studied in the EIS

> *Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.*[1]
>
> *A problem of "segmentation" may also occur where a transportation need extends throughout an entire corridor but environmental issues and transportation need are inappropriately discussed for only a segment of the corridor.*[2]

As stated in Bill 79 (2006)[3] and Ordinance 07-001:

> *The locally preferred alternative for the Honolulu High-Capacity Transit Corridor Project shall be a fixed guideway system between Kapolei and the University of Hawaii at Manoa ... with the Waikiki branch ... The city administration is authorized to proceed with preparation of an environmental impact statement for the locally preferred alternative (LPA)*

Resolution 07-039 defines a shortened minimum operable segment between East Kapolei at the University of Hawaii-West Oahu, near the future Kroc Center, and Ala Moana Center.

The second and last Scoping Report, p. 5-3, states clearly that:

> *Both UH Mānoa and Waikīkī service are included in all fixed guideway alternatives that will be evaluated in the EIS.*

However in the Draft EIS, the detailed environmental analysis and documentation applies only to the core 20-mile alignment between East Kapolei and Ala Moana Center. The additions from East Kapolei to West Kapolei and from Ala Moana Center to UH Mānoa and to Waikīkī are described as "future planned extensions."

The Locally Preferred Alternative should be examined in the EIS in its entirety as was intended by both Notices of Intent and authorized by the City Council. The three "planned extensions" should not have been segmented from the Locally Preferred Alternative in this Draft EIS.

As the Corps of Engineers commented for the second Scoping Report, A-10,

> *The Corps believes the environmental consequences resulting from construction of the "Minimal Operable Segment" and all planned extensions must be considered in the project-level EIS, particularly if the Project [meaning the LPA] benefits, wholly or partially, are derived from one or more of these future extensions and station locations.*[4]

We believe that segmentation of what was formerly the Locally Preferred Alternative into a newly designated "Project" (formerly the Minimum Operable Segment and later the First Project) and "planned extensions" was surreptitiously undertaken to avoid the following FTA policy.

> *... the Federal 'undertaking' in a Fully Funded Grant Agreement (FFGA) will no longer be segmented into Project and Local Activities. All activities related to a Federal undertaking will be identified as the Federal Project. The Federal funds will be distributed among all the activities in the project at a level funding ratio equal to the*

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1 40CFR1502.4[a]
2 http://www.fhwa.dot.gov/environment/alts.htm
3 http://www.honolulutraffic.com/Bill79Final.pdf
4 Corps of Engineers comments, Second Scoping, App. A-1, p. A-6, at: www.honolulutraffic.com/NEPAScopingReport.pdf

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> *percentage of Federal financial participation in the entire project. Thus, all the elements and activities of the project, as described in the FFGA will be funded, in part, with Federal funds; and, the requirements attached to the use of Federal funds will apply to each such task, unless otherwise exempted as provided in the applicable laws, regulations and policies.*[5]

Not segmenting the original Locally Preferred Alternative would mean that the City would get far less federal funds for the Minimum Operable Segment and make the MOS even more financially untenable than it is already (see Discussion of Finances).

The lack of any credible rationale in the Draft EIS for the City's segmentation of the "planned extensions" from the LPA intimates that the segmentation was done to facilitate funding and acceptance of the Draft EIS since cost and environment issues for the extensions to UH Manoa and Waikiki are proportionally greater than for the Minimum Operable Segment.

These combined segments of the project are intended to provide approximately 30 miles of unified rail transit line. The cost and environmental impacts of the integrated project will be significantly greater than the isolated Minimum Operable Segment or "Project" that is specified.

The UH Manoa and Waikiki extensions will traverse the core urban center of Honolulu creating significant cumulative environmental impacts including prolonged lifestyle disruption due to construction difficulties, excavation of culturally sensitive areas, severe noise impacts through close-quartered residential neighborhoods resulting in great emotional distress, impossible to mitigate visual impacts, and negative impacts on property values within close proximity to the rail line.

> *When several foreseeable similar projects in a geographic region have a cumulative impact, they should be evaluated in a single EIS.*[6]

Like the two sections of the Winston-Salem beltline at issue in North Carolina Alliance, the three remaining sections of the Locally Preferred Alternative,

> *... constitute cumulative actions, and therefore should [be] considered in the same environmental impact statement.*[7]

The *de minimus* discussion of cumulative impacts of the planned extensions in the Draft EIS do not justify segmentation of the Locally Preferred Alternative under NEPA. This segmentation has occurred because of funding considerations and the arguments found in the Draft EIS are merely post-hoc rationalizations for this funding-driven violation of the law.

The Draft EIS violates both NEPA and the FTA regulations because it fails to consider the fully detailed cumulative actions of the Minimum Operable Segment and the "planned extensions" in a single Environmental Impact Statement, because these sections were segmented due to funding considerations rather than the NEPA criteria.

The Draft EIS, p. 2-41, states that,

> *The Ala Moana Center and Convention Center Stations would be transfer points between the UH Mānoa and Waikīkī branch lines.*

This raises innumerable question about how this would all work and what would be the impacts. For example, the engineering drawings[8] show that the planned extension to UH would entail

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5 http://www.fta.dot.gov/funding/thirdpartyprocurement/bppm/grants_financing_6105.html

6 Resources, Ltd. v. Robertson, 35 F.3d 1300, 1306 (9th Cir. 1993), quoted in North Carolina Alliance for Transportation Reform v. U.S. Dept. of Transportation, 151 F. Supp. 2d 661, 685 (M.D.N.C. 2001).

7 151 F.Supp. 2d at 684.

8 Draft EIS, Appendix A, Sheet RP024.

adding a branch line in the vicinity of the junction of Queen and Waimanu Streets. This would likely near double the width of the rail bed. The drawings also show that these two rail lines cross over one another at Piikoi and Kona Streets with one line continuing at the 35 feet level and the one above at 65 feet. This may be an even greater eyesore than was in the original plan.

How are the two Ala Moana stations going to work? And how are the promised three minute headways to be maintained with these future extensions.

Further, if Ala Moana Center and the Convention Center are transfer points to Waikiki and UH Manoa, how will that work environmentally? If UH Manoa and Waikiki are also to have service every three minutes, how is that going to work with three separate lines — Ala Moana only line, UH Manoa line and Waikiki line — in operation?

Is the lower Ala Moana Station to be torn down and replaced by the originally contemplated higher one? Or is it that the structures at Ala Moana Center present insurmountable engineering difficulties and that the City has no plan to ever build beyond Ala Moana Center?

Or is it that the "planned extensions" could not possibly pass the FTA's cost-effectiveness test? It is obvious that the "planned extensions," which would require a separate EIS,[9] would not come close to meeting the cost-effectiveness requirements.

In another significant omission, the Draft EIS does not give total transit boarding or trip data for the various rail alternatives, only Fixed Guideway Boardings.[10] However, according to the Alternatives Analysis the greatest transit ridership generated of all the rail alternatives is 294,100 versus 281,900 for the 20.7 mile MOS. That is a mere 4.5 percent increase in ridership requiring a 25 percent increase in capital costs, again according to the Alternatives Analysis.

Frankly, failing a coherent plan that addresses these issues, we are presently inclined to believe that Ala Moana Center is the final terminus and there may well be no real intent to build the "planned extensions."

Had the City Council and the public been aware of this segmentation at the time of the Alternatives Analysis and Scoping, the public responses may well have been very different. For example, the Managed Lane Alternative would have been considered more useful if there was to be no direct rail connection to UH Manoa.

In addition, the Minimum Operable Segment will have almost no impact on residential property in the dense urban areas whereas the planned extensions to UH Manoa and Waikiki will have significant adverse impacts on high rise condominiums, hotels, and family dwellings.

For all these reasons the Locally Preferred Alternative should be examined in the EIS in its entirety as was intended by both Notices of Intent and authorized by the City Council and as required by law.

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9 Draft EIS, 2-41.
10 Draft EIS, Table 3-28.

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Part IV — First Project, Phase I, is an illegal segmentation.

> *Agencies shall not commit resources prejudicing selection of alternatives before making a final decision. 40CFR1502.2[f].*

The Locally Preferred Alternative is a major federal action. To have the First Project, Phase I, East Kapolei to Pearl Highlands, under construction before such time as the City is granted a Full Funding Grant Agreement, or even a Record of Decision, or being given a Letter of No Prejudice[1] clearly violates federal regulations on evaluating environmental impacts (23 CFR 771.111(f)), which require that:

> *In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each environmental impact statement (EIS) or finding of no significant impact (FONSI) shall:*
>
> *Connect logical termini and be of sufficient length to address environmental matters on a broad scope;*
>
> *Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and*
>
> *Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.*

To build Phase I prior to receipt of a Letter of No Prejudice would violate the regulations. Connecting East Kapolei to Pearl Highlands where the first three of the six stations are in open fields[2] is not exactly connecting *"logical termini"* especially as the Kapolei terminus and the next two stations are in open fields, and where for the last half of its six-mile length is in an area of low population density.[3]

While the Phase I costs, ridership and cost-effectiveness are not detailed in the Draft EIS, it is obvious that it cannot possibly have *"independent utility or independent significance."*

For these reasons, the construction of Phase I would be an illegal segmentation.

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1 Spot Report #2, PE Entry Readiness Report, on HHCTCP by Booz Allen, October 2008.
2 See video http://www.honolulutransit.com/video/?id=14

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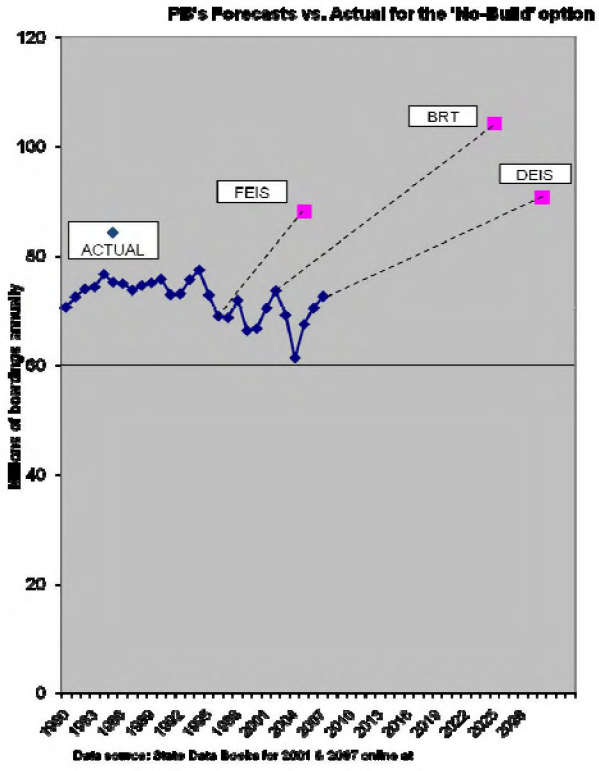
Part V — Unjustifiable forecasts:

1. Ridership forecasts

The No-Build forecast is irrational and it stems from the fact that proponents refuse to recognize that transit continues to lose market share to the automobile and has been doing so for as long as the Census has been collecting commuting data.

We can also measure the decline by using total urban transit boardings and divide it by urban populations — a number that used to be known as the *riding habit*.

Transit boardings per capita of urban population peaked in 1917 at 289 boardings annually. It declined slowly to 276 by 1926 then dropped precipitously during the Depression to 176 by 1940. It increased during World War II and then dropped back down to the earlier level at the end of the war and then declined steadily to 49 in 1970. Since then it has dropped to today's level of 42.



While the decline continues on it is at a much slower rate. And that is because of the subsidies.

In 1960 transit companies were, for the most part, profitable tax-paying privately-operated businesses. In the 1970's began the massive subsidies for transit from local, state and federal governments — some $260 billion just in the last ten years. It has slowed the decline in transit's market share but it has not stopped it.

Honolulu has followed the national trend. Our ridership is slowly declining over time as can be seen from the chart below using the City's ridership data.[1] But while the ridership is declining despite increased population and providing higher service levels to the public, the City and Parsons Brinckerhoff continue to forecast increases for the No-Build alternative, which is what happens if we do little more than we are doing now and have done for the last thirty years.

The chart shows the last three forecasts made by Parsons Brinckerhoff for the No-Build option for the 1992 rail project, the 2003 forecast of No-Build for the BRT program and now the No-Build forecast for this Draft EIS.

The importance of the No-Build forecast is that the rail transit forecast uses the same computer forecasting model. Thus, if the No-Build is optimistic, so are all the forecasts that use the same model, such as the rail transit forecast.

[1] http://hawaii.gov/dbedt/info/economic/databook/Data_Book_time_series/ Table 18.25

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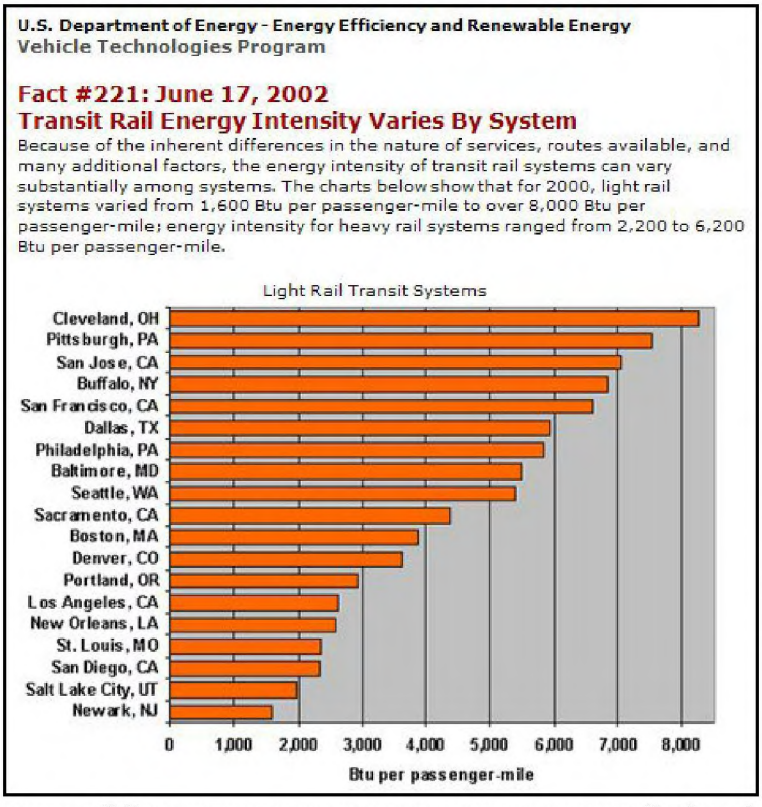
Take a hard look at the above chart. Remember that during this period Oahu has had two periods of incredible fuel cost spikes and declines. We have had periods of great prosperity in the 1980s and late 1990s to 2007 and economic hardship in the early 1990s. We have had population growth and a period of slight population decline. And while we had a general slight decline in bus ridership it was a considerable decline relative to population growth.

The historical data strongly suggests that we will get more of the same unless major changes were to occur.

Since the last two forecasting models have been drastically wrong on Honolulu ridership and since there have been dramatic shortfalls in ridership projections for virtually all new U.S. rail transit systems,[2] the public should be wary of the ridership forecasts for the Project and consider the impacts of lower (and higher) ridership on their future taxes.

The last rapid transit line to open in the U.S. was Puerto Rico's Tren Urbano line which only achieves 40 percent of its FTA approved ridership projections.

2. Projected energy savings have not been carefully examined.



The U.S. Dept. of Energy has measured the energy use of rail by system and finds the following:

"Because of the inherent differences in the nature of services, routes available, and many additional factors, the energy intensity of transit rail systems can vary substantially among systems. The charts [see here and Appendix C] show that for 2000, light rail systems varied from 1,600 Btu per passenger-mile to over 8,000 Btu per passenger-mile; energy intensity for heavy rail systems ranged from 2,200 to 6,200 Btu per passenger-mile."[3]

The average energy use of automobiles is 3,400 Btus per passenger mile according to the U.S. Dept. of Energy.[4] Thus, many rail lines consume more energy per passenger mile than does the average automobile with a typical 1.1 occupants.[5]

Undoubtedly, a full train uses less energy per passenger than a single-occupant vehicle; however, trains are rarely full in both directions except in extremely highly populated metropolitan cities.

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2 See page 5.

3 Fact #221: June 17, 2002 Transit Rail Energy Intensity Varies By System

4 Source: 2007 DOE Energy Data Book. Table 2.13. At: http://cta.ornl.gov/data/tedb27/Edition27_Chapter02.pdf

5 Load factor used was 1.1 occupants for automobiles and 1.72 occupants for light trucks and SUVs. Source: http://cta.ornl.gov/data/tedb27/Edition27_Appendix_A.pdf

Where the confusion arises is that rail proponents unjustly tout the *weighted* average of rail transit energy use. This average is dominated by the energy efficient New York subways, which carry 57 percent of the nation's rail transit traffic and masks the relative energy inefficiency of most other rail lines.

But Honolulu is not going to use the ultra heavy rail equipment, such as New York's, because it does not have the population size to support such equipment.

In addition, autos travel directly from their point of origin to their destination, and therefore, the total miles travelled are much less than by transit – and thus more energy efficient.

With the continued growth of hybrid cars and buses we may expect their energy efficiency to continue to significantly improve up to the horizon year of 2030 while rail transit projections are not forecasting savings.

Construction energy use:

Another form of energy use is that used for its construction. The following is an excerpt from the Congressional Budget Office testimony given by its Director, Alice Rivlin, before the Subcommittee on Transportation, Committee on the Environment and Public Works, United States Senate on October 5, 1977.

> *"In particular, new heavy rail systems appear much less energy-efficient than new bus services, when the energy needed to build roadways and track, the energy needed to manufacture and maintain vehicles, the energy used to heat and light stations, the energy required to drive to stations, and the directness of alternative modes of travel are taken into consideration. The principal reason for this is that the limited route mileage of rail systems necessitates a high degree of auto travel to and from stations, resulting in overall, door-to-door travel patterns that are less energy-efficient than rail travel by itself."*

In short, we believe it will be very difficult for the City to show scientifically and "in an accurate, clear, complete, and unbiased manner"[6] that the proposed rail line is more energy efficient than the average automobile.

The Draft EIS shows:

Daily operating energy for Airport Alternative:	1,224 million btu/day
Construction energyfor Airport Alternative:	7,480,000 million btu

This means construction energy would be 20 years worth of daily energy usage. If we allow a 50 year life for the train and spread the construction energy use over its life then we need to increase the daily usage by 40 percent to get a better picture of energy use.

The construction energy issue together with the shorter distance covered by the automobile makes it almost impossible for even a highly energy-efficient rail line to be more energy efficient than the regular automobile and this should be made clear to the public.

3. The Draft EIS financial plan is unduly optimistic

The City's recently released financial plan shows us that rail is to be funded primarily by the ½ percent General Excise Tax surcharge amounting to $4.1 billion and the federal government with $1.4 billion for a total of $5.5 billion.

The Airport Alternative capital plan shows federal New Starts funding of $1.4 billion and this is much higher than what has been discussed heretofore.

[6] OMB Guidelines for ensuring the integrity of information. http://www.whitehouse.gov/omb/fedreg/reproducible2.pdf

What is not discussed is that the additional operating subsidy for rail is not accounted for in the cash flow plan but will be paid for with the General and Highway Funds, which is to say, by property taxes. This subsidy grows 34 percent over inflation through 2030 and the total operating subsidy amounts to $5.4 billion during this time.

In addition, even if this highly optimistic financial plan is met, not only would we have $5.4 billion to meet out of property taxes (either increases or foregone reductions) but we will also have over $500 million more in General Obligation bonds than at present.

The City plan shows the GE tax surcharge revenues growing at 5.4 percent compounded annually for 2008-2022 even though that is much faster than the 4.5 percent that it grew during 1992-2005.

The table below consists of the city's forecast taken directly from their Cash Flow Tables associated with the Draft EIS. Calculations of City collections of the ½% GE tax increase					
Fiscal year	Our calculation		City forecast		$ diff.
	Mills. $'s	% change	Mills. $'s	% change	Mills. $'s
2007	$48	Actual	$13	N/A	$35
2008	$169	Actual	$161	N/A	$8
2009	$173	2.5%	$188	16.8%	-$15
2010	$167	-3.5%	$198	5.3%	-$31
2011	$169	1.3%	$207	4.5%	-$38
2012	$174	3.0%	$214	3.4%	-$40
2013	$180	3.1%	$228	6.5%	-$48
2014	$190	5.9%	$242	6.1%	-$52
2015	$203	6.6%	$253	4.5%	-$50
2016	$215	5.7%	$265	4.7%	-$50
2017	$222	3.4%	$274	3.4%	-$52
2018	$231	4.0%	$285	4.0%	-$54
2019	$243	5.3%	$300	5.3%	-$57
2020	$250	3.0%	$309	3.0%	-$59
2021	$260	3.9%	$321	3.9%	-$61
2022	$273	5.0%	$337	5.0%	-$64
2023	$143	5.0%	$261	N/A	-$118
Total	$3,312		$4,056		-$744

Our calculation uses actual collections given by the City's Department of Budget and Fiscal Services for fiscal years 2007 and 2008[7], the projection of percentage increases and decreases in GE tax collections by the State Council on Revenues 2009-2015[8], and the City's projection of annual percentage increases in GE tax revenues for 2016 through 2023 as calculated from their Cash Flow Tables.[9]

The net result is a $744 million shortfall from what the City is projecting. It shows that the City is going currently into deficit and when the economy turns positive the City never catches up.

7 http://hawaii.gov/tax/monthly/2008fyr1.pdf The gross revenues are shown before the State takes its ten percent share.
8 ESTIMATES OF GENERAL FUND TAX REVENUE: FY 2009 to FY 2015 at http://www.state.hi.us/tax/cor/2009gf01_with0112_Rpt2Gov.pdf page 4 of 8.
9 http://www.honolulutraffic.com/Cash_Flow_Table.xls

4. Risk assessment understated

The risks that Honolulu taxpayers are taking that are possible, and more likely probable, from inaccurate forecasting are poorly and insufficiently addressed.

The federal government has published two formal studies comparing predicted with actual impacts of New Starts projects. In another omission these are not so much as mentioned or referenced in the Draft EIS.

The financial risk assessment is superficial in that it describes events that could affect the financial performance of the Project, but does not address the consequences. For example, the Draft EIS discusses factors that could affect Project capital costs and funding, and Project operating costs and revenues, but it does not elaborate (or even mention) the consequences of any shortfall in capital of operating cash flow.

A significant capital shortfall could result in stoppage of the Project at an intermediate stage, and/or delay in completion of any or all of the extensions or be made up by incurring further debt.

A significant shortfall in cash flow could result in deferral of other City projects or programs, or would have to be made up by City subsidies, which are primarily funding by property taxes.

At a minimum, the risk assessment should include such items as:

- How any additional borrowing will be paid for.
- A sensitivity analysis of Project negative cash flows (capital or operations) on property taxes.
- A detailed analysis of projects that would have to be delayed (including this one) based on insufficient capital.
- Identification of environmental projects that would be affected (sewage plant upgrades, collection system upgrades, sewer maintenance).
- Identification of quality-of-life issues (road maintenance and repairs, park maintenance and other city services).

The EIS needs to explain "in plain language" the financial risks taxpayers will be taking with the City's rail transit proposal.

This is particularly important for Honolulu since, on a per capita basis, the $4.5 billion in 2008 dollars (or $5.4 billion in year of expenditure dollars) projected cost would make it by far the most expensive rail lines on a per capita basis ever built in the U.S, even allowing for inflation and without cost overruns.

Rail transit costs per capita of population[10]

MSA	Cost in millions 2006$'s	Metro area population (thous.)	Cost per capita
Dallas	$1,067	5,222	$204
Denver	$358	2,582	$139
Portland	$1,643	2,265	$725
Sacramento	$307	1,797	$171
Salt Lake City	$376	1,334	$282
St. Louis	$464	2,604	$178
Pittsburgh	$1,051	2,571	$409
Honolulu	$4,200	920	$4,565

To make a sensible assessment of the financial risks of the project, policy makers need to review the experiences of other metro areas that have built rail lines with actual versus projected capital and operating costs and ridership. The use of comparable projects is widespread in business planning and certainly in real estate. It should be an FTA requirement that transit agencies include comparable data in their EISs.

[10] The data in the table is not completely reliable but does approximate the relative per capita costs.

Until recently the only official U.S. Department of Transportation (USDOT) comparisons of other metro areas capital cost projections and ridership versus actual outcomes, was the 1990 *Pickrell Report*[11] which focused "upon the accuracy of projections that were available to local decision-makers at the time the choice among alternative transit improvement projects was actually made" (original emphasis). This is usually the time when the Locally Preferred Alternative is selected.

This report showed cost overruns for the eight rail projects studied as averaging 42.8 percent. Importantly, they revealed a wide error range from the best, the original Pittsburgh light rail line, at 11 percent under projection, to the worst, at 83 percent over.

The second study, FTA's *Predicted and Actual Impacts of New Starts Projects*[12] was released last year and also compares projected costs at the Alternatives Analysis/Draft EIS and FEIS stages with actual costs. The average cost overrun in this study was 40.2 percent.

Many agencies use cost forecasts that were made much later in the process, some just before the opening of the line, long after the primary decisions had been made. These tend to show much higher projected costs and therefore show a greater likelihood of coming in "under budget."

Furthermore, in reviewing the two studies we find little consistency in the percentage overruns. While the averages are around 40 percent over, they vary from 28 percent under projection to 186 percent over so we can take little comfort from the averages.

The following table shows the range of errors and also the average error for both cost and ridership projections in each of the two reports.

More important than averages is the distribution of the various error rates. For example, if the resulting costs of the 21 projects were between ± 10 percent of the original projections it would be a reasonable indication to the public of the accuracy of the projections.

Projections versus Actual — Ridership and Costs				
	costs vs. projections		Ridership vs. Projection	
	Cost range	Average	Range	Average
Pickrell Report	-11% to +83%	+43%	-28% to -85%	-62%
FTA CPAR Report	0% to +186%	+40%	-84% to +39%	-39%

But when faced with actual results that range from on budget to nearly triple the projection, what is the public to make of it? Based on the wide range of uncertainty, what is the public to believe?

Even if we were to use just the average it would increase the Honolulu Project cost from $4.5 billion to $6.3 billion — a nearly $2 billion increase. And ridership would be 39 percent lower than projected,[13] which would mean fare revenues of $800 million less than the City is planning on through 2030.

The City Administration will undoubtedly paint this as ridiculously improbable and wildly pessimistic.

However, each of these recent 21 capital cost projections was thought at the time to be reasonable by both the transit agency and its consultant who produced them. Just as our City Transportation Department and its consultants, Parsons Brinckerhoff and InfraConsult, also believe their current cost projections are reasonable.

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[11] Pickrell, Don H. Urban Rail Transit Projects: Forecast Versus Actual Ridership and Costs. U.S. Dept. of Transportation. October 1990. Informally known as the Pickrell Report.

[12] Federal Transit Administration. *The Predicted and Actual Impacts of New Starts Projects — 2007: Capital Cost and Ridership.* April 2008. We used the Alternatives Analysis/Draft EIS forecasts for comparison as did the Pickrell Report.

[13] http://www.fta.dot.gov/documents/NSPA2007_Final(1).pdf Table 7.

In addition, the FTA's in-house analysts and outside consultants also examined each of these 21 capital cost projections in great detail and thought them all reasonable.

And so here we have innumerable transit planners, engineers and accountants, all well educated and experienced and all believing that, as a the result of their hard work, the cost projections are, dare we say it, reasonable. Yet each new project seems to ignore past experience, and in most cases, the project comes in significantly over budget.

The FTA believes that projects that are within ± 20 percent range are reliable.[14] On this basis, Honolulu's forecast could have nearly a billion dollar cost overrun and still be considered "reliable." But, in this latest FTA report, more than half of the projects exceeded the 20 percent deviation limit.

The public needs to understand the financial risk and implications of various levels of cost overruns, and then consider how, or even if, they, as taxpayers, can cope with the resulting financial impact. After all, Hawaii's senior Senator, Daniel Inouye, said that if the City had to spend one billion dollars fixing the sewage treatment facility, it would bankrupt us. The rail project could cost as much as $9 billion, before accounting for operating losses and bond interest. What would be the financial impact of that?

The Draft EIS shows us clearly that traffic congestion, with rail, is going to be far worse than it is today.[15] Is it reasonable to expect that Honolulu taxpayers to afford to risk this many billions of dollars on a project that will not reduce traffic congestion below today's unbearable levels?

The issue here is that the public needs to be provided in the EIS with sufficient quantified information about the financial risks and uncertainties in the project for them to understand what could be the impact on their future property taxes.

The Draft EIS states that transit operating subsidies will increase from the current less than 10 percent of the City Budget to 14 percent by 2030.[16] Since the subsidies will continue to be funded from the City's Highway and General Funds,[17] what will be the effect on property taxes given a range of errors for both capital costs and ridership?

5. Operating subsidies are understated:

The City projects operating subsidies to be 70 percent of operating costs, which has been a long-term City Council policy. Thus the higher the operating costs, the higher the subsidies.

Operating costs for the mid-priced Airport Alternative are projected to be $68 million[18] annually to carry unlinked trips (boardings) of 29.9 million[19], or $2.27 per unlinked trip.

However, nowhere in the Draft EIS is there any indication of what is being used as the basis for calculating operating costs.

Since we are planning to build an elevated steel-on-steel rapid transit system we should compare our projected operating costs with those of other U.S. cities with elevated rapid transit lines.

There are just two elevated lines that seem appropriate, the Miami Metrorail and San Juan's Tren Urbano. Their actual operating costs per trip in 2007 were $4.61[20] and $6.83[21] respectively. This would lead us to believe that Honolulu's projected $2.27 may be understated.

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14 CPAR p. 9.

15 Kalauao Screenline AM Peak Koko Head bound traffic volumes are forecast in the Draft EIS to increase by nearly 10 percent from today's levels with no additional highway capacity planned.

16 Draft EIS, pp. 6-7 & 8.

17 Draft EIS, Section 6.4.4.

18 Draft EIS, Table 6-3.

19 Draft EIS, Table 3-16 shows 95,000 average weekday boardings, which multiplied by 315 results in 29.9 million.

20 http://204.68.195.57/ntdprogram/pubs/profiles/2007/agency_profiles/4034.pdf

If we examine actual versus projected operating costs and ridership of other rail lines we can get a handle on the risks being taken in this cost category.

The FTA's latest assessment of ridership published last year showed average shortfalls from the projected ridership were 39 percent while the earlier *Pickrell Report* showed an average shortfall of 61 percent.

Another FTA Report released last year dealt with cost overruns for operating costs.[22] This showed an average cost overrun was 87 percent. This was remarkably close to the only other assessment of operating cost overruns, which was the *Pickrell Report* averaging 83 percent.

If we apply the 87 percent overrun to Honolulu's projected $68 million operating costs it results in $127 million. And if we reduce ridership by 39 percent to 58 million and then divide that into the $127 million it results in operating costs of $6.81 per unlinked trip, or three times the amount currently projected.

Since the aggregate operating costs for bus and rail combined through 2030 is currently projected at over $7 billion[23] the public should be made aware of the significant risk being taken in this area.

There is also a danger that we may have made insufficient allowance in the calculation for transit police, which is usually a major expense and transit agencies often omit it from their forecasts by accounting for it in other parts of their budgets.

Los Angeles pays in excess of $50 million annually for their Transit Police with about three times the rail ridership projected for Honolulu. We note that is no mention of such costs in the Draft EIS.

6. Replacement and Refurbishing

The city does not explicitly warn the public in the Draft EIS that virtually all of the rail cars, rail lines and other equipment will have to replaced, or rehabilitated, also known as R&R, within 35 years from the start of operations.

Other than to project that the City will expend $62 million[24] on R & R through 2030, the following two paragraphs is all that is said.

> *The estimates include ongoing costs for replacing, rehabilitating, and maintaining capital assets in a state of good repair throughout the forecast period (2007 to 2030). Rail rehabilitation and replacement costs are expected to begin 16 years after initial construction activities are completed. Draft EIS, 6-3.*
>
> *6.4.3 Ongoing Capital Expenditure Cash Flow: Systemwide ongoing capital expenditures include all necessary replacement, rehabilitation, and improvements to the existing system (TheBus and TheHandi-Van) as well as the Project. Funding sources used to pay for these capital expenses consist of discretionary and formula-based Federal funding programs (see Section 6.2.3, Funding Sources for Ongoing Capital Expenditures, for descriptions of these programs). Any resulting funding gap is assumed to be bridged on an annual basis with City General Obligation Bonds, as is currently the case with transit-related budgets. Therefore, the resulting ongoing capital sources and uses would balance in any given year. Draft EIS, 6-10.*

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21 http://204.68.195.57/ntdprogram/pubs/profiles/2007/agency_profiles/4094.pdf
22 http://www.fta.dot.gov/documents/CPAR_Final_Report_-_2007.pdf
23 Draft EIS Cash Flow Tables, Airport Alternative, total YOE$.
24 Draft EIS Cash Flow Tables. In 2008 dollars, or $116 million in YOE$.

Failing to provide for R&R results in this Washington DC headline that "Metro needs $11.3 billion" which goes on to explain that,

> *$7 billion alone is needed just to maintain service and keep the system running safely and reliably from 2010 to 2020. That includes repairs to leaking tunnels and crumbling platforms, as well as replacements for aging rail cars.*[25]

The following are some of the provisions made for R&R by other rail transit lines such as San Francisco's BART, the Chicago Transit Authority's rail transit, and Atlanta's MARTA, as follows:

Chicago Transit Authority capital expenditure plan spells out that:

> *"All rail cars rehabilitated at mid-life (12-13 years), overhauled at their quarter-life points (6 and 18 years), and either rehabilitated or replaced at the end of their useful life (25 years)."*[26]

Similarly, the Atlanta Transit Authority concurs:

> *"MARTA started work last year to rebuild and upgrade all 48 miles of track. It is an extensive project that will not be complete until mid-2007. Our trains have run every day for over 25 years – this work is necessary to keep the system strong for the next 25 years and beyond. The Track Renovation is part of a major capital program that also includes the overhaul of over 200 of MARTA's rail cars."*[27]

Los Angeles plans for R&R using the Peskin model:

> *"Projected rehabilitation and replacement costs are based on a methodology developed by Robert Peskin of KMPG Peat Marwick (commonly called Peskin Model). This methodology was developed based on actual costs experienced by the Washington Metropolitan Area Transit Authority (WMATA). Actual WMATA rehabilitation and replacement costs were compared to their original installation capital costs. The MTA rail rehabilitation and replacement costs were calculated in the same manner based on the Metro Blue, Red, Gold and Green Lines original installation capital costs. The rehabilitation and replacement costs are estimated to begin five years after a rail line begins revenue operations. Some limited repair is assumed in the forecasting model for the first few years as reflected in the five-year MTA Capital Improvement Program (CIP) and annual budget."*

Based on the MTA Office of Management and Budget near term forecast and Peskin Model in the later years the rail rehabilitation and replacement costs through 2025 are $4.7 billion.[28]

BART began its first major repair and rehabilitation plan in 1994 at a cost of $1.2 billion within only 20 years of opening. At the time, their balance sheet showed "Facilities, property and equipment" was $2.4 billion, net of $0.7 billion in depreciation.[29] Thus, the total invested in this category through 1994 had been $3.1 billion.

The Bay Area's Transportation and Land Use Coalition[30] tells us that the BART Planning Department reported to the Board of Directors meeting on November 9, 2000, that total repair and refurbishing requirements for BART during 2001 to 2030 would be $6.8 billion spread across the entire 30-year period.

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25 http://www.washingtontimes.com/news/2008/sep/23/metro-needs-113-billion/
26 http://www.transitchicago.com/business/capitalprogram.html
27 http://www.itsmarta.com/newsroom/latest_news/singletrack.htm
28 Short Range Transportation Plan for Los Angeles County, Technical Document 2003
29 Bay Area Rapid Transit, 1972 through 1994 Annual Reports.
30 http://www.transcoalition.org/reports/overext/overextended.html

The San Francisco Bay Area voters were unaware at the time of the BART decision that BART would need to refurbish or replace "facilities, property and equipment" in amounts far exceeding BART's original cost; they had been sold on the concept that once you have built rail it is there forever.[31]

Honolulu's rail line financial plan should make provision for potential refurbishing liabilities using the Peskin model (or similar) to provide decision-makers with the appropriate financial information detailing likely future financial obligations for replacement, refurbishing and system enhancement. The Peskin Model[32] is used by the Washington Metro and Los Angeles among other. A useful discussion of the subject is in the 2004 Status of the Nation's Highways, Bridges, and Transit, Chapter *7c*.

The Federal Transit Administration (FTA) requires that,

> *"Agencies planning major capital investments need to incorporate the [repair and refurbishing] (R&R) of those assets in the later years of the capital plan in addition to the ongoing R&R of the existing asset base."*[33]

It would be helpful to think in terms of the Aloha Stadium which has cost far more to maintain than it ever cost to build. As the Honolulu Advertiser explained last year,

> *The estimated $185 million renovation of Aloha Stadium is expected to transform the rusting, 33-year-old facility into a "new stadium," ... Since opening in 1975 at a cost of $32 million, the state's largest facility has been dogged by costly repairs and lawsuits. From 1985 to 1995, rust treatment cost $80 million..*[34]

The City needs to establish a detailed schedule of R&R obligations that the rail line is likely to face in future years so that the public is fully aware of what they are getting themselves into.

The impacts of forecasting errors

A major concern is that the City's Cost-Effectiveness Rating of "Medium" hovers near the "Medium-Low" rating, which would make the project ineligible for federal New Starts funds.

The FTA rating is calculated by dividing projected new riders into the total of projected annualized capital costs and projected annual operating costs. At present the FTA rates a new trip as cost-effective if it costs $22 or less. That amounts to a subsidy of over $10,000 per new rider annually.

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31 Excerpt from a speech by Todd Litman at the Mayor's Transit Symposium.

32 Peskin, Robert L. 1988. "Methodology for Projecting Rail Transit Rehabilitation and Replacement Capital Financing Needs." In: Transportation Research Record 1165. Washington, DC: Transportation Research Board, National Research Council.

33 Source: http://www.fta.dot.gov/printer_friendly/planning_environment_2423.html
8.3.1.1 Rehabilitation and Replacement. The rehabilitation and replacement (R&R) of capital resources is needed for several reasons. First, capital resources wear out. Stations, maintenance facilities, track-way, signal systems, propulsion systems, and vehicles all have distinct useful lives. These assets must be re-capitalized before deterioration leads to service disruptions. Second, technological obsolescence due to the availability of parts or technological advances may spur the replacement of various systems. Old rail cars may become increasingly difficult to maintain and require replacement or agencies may wish to implement communications based train control, automatic train stop, or passenger information systems to improve system reliability and safety. Third, changes in operating or safety policies may require new capital investment. One example is station or vehicle enhancements to assure compliance with the American's with Disabilities Act (ADA).
Prudent capital planning requires an inventory of the agency's assets and an evaluation of the expected useful life of each major component. An R&R cycle is assumed for each of the major assets and annual costs are projected at least 20 years into the future. Agencies planning major capital investments need to incorporate the R&R of those assets in the later years of the capital plan in addition to the ongoing R&R of the existing asset base.
In most cases, the capital costs for R&R will vary markedly from one year to the next due to different cycles and widely varying costs for the numerous components. Agencies typically establish reserve accounts, sometimes called sinking funds, to provide the funds for sudden increases in capital spending. Occasionally, agencies smooth out the R&R cost swings by using a multi-year rolling average as the annual cost estimate.

34 http://the.honoluluadvertiser.com/article/2008/Jun/27/ln/hawaii806270385.html

However, if the projections are not achieved and recent FTA assessments of cost overruns for capital costs, cost overruns for operating costs and shortfalls in ridership occur then the cost effectiveness calculation changes dramatically.

We are also concerned that the fact that at this late stage the Project does not yet have an FTA rating yet there is no explanation of why that should be, as is required by NEPA:

> *... (Draft EISs) must present — for all alternatives — the information used by FTA to assign New or Small Starts ratings if that information has been vetted by FTA. If the information has not been vetted with FTA, then the absence of the information must be highlighted in the document.*
>
> *The intent of this policy is to comply with FTA requirements for AAs and the Council on Environmental Quality for DEISs by identifying information relevant and important to a decision on a locally preferred alternative. If this requirement cannot be met, publication of the AA or AA/DEIS would not be delayed; rather, the absence of the information and its relevance must be explained in the AA or AA/DEIS. (emphasis added)*[35]

Instead, in the Draft EIS, the City slides by the issue rather than highlighting and explaining why the Project is not rated. This is the City's explanation:

> *The cost-effectiveness indices for the Build Alternatives compared to the baseline fall within the "medium" range established by FTA for its New Starts ratings, which, along with other considerations, is currently required to qualify for New Starts funding. FTA is currently reviewing the estimates made for ridership and user benefits, operating and maintenance costs, and capital costs for the Build Alternatives. If these results hold up through subsequent phases of project development, along with other FTA considerations, the Project would be in the competitive range for funding consideration. Funding recommendations are made each year from among the projects that have completed the planning and project development process, including the National Environmental Policy Act process. These recommendations reflect the merits of the projects competing for available Federal funds at the time, as well as the availability of New Starts funding authorization. DEIS, p. 7-9.*

The fact that the Project is not yet rated is not made clear. It is certainly not highlighted since the subject is not even mentioned in the Executive Summary. This is important as without a rating the Project cannot enter Preliminary Engineering.

[35] http://edocket.access.gpo.gov/2007/pdf/07-2774.pdf p. 30913.

Appendix C

Energy Use per passenger mile of rail systems		
Light Rail Transit		
City, State	Btu per passenger-mile	Average
Cleveland, OH	8,250	
Pittsburgh, PA	7,526	
San Jose, CA	7,035	
Buffalo, NY	6,839	
San Francisco, CA	6,591	
Dallas, TX	5,935	
Philadelphia, PA	5,828	
Baltimore, MD	5,508	
Seattle, WA	5,383	
Sacramento, CA	4,368	
Boston, MA	3,878	
Denver, CO	3,612	
Portland, OR	2,927	
Los Angeles, CA	2,621	
New Orleans, LA	2,594	
St. Louis, MO	2,366	
San Diego, CA	2,337	
Salt Lake City, UT	1,970	
Newark, NJ	1,597	
Sub Total light rail	87,165	4,588
Heavy Rail Transit		
City, State	Btu per passenger-mile	
Cleveland, OH	6,173	
Lindenwold, NJ	5,027	
Miami, FL	4,928	
Boston, MA	4,464	
Chicago, IL	4,205	
Philadelphia, PA	4,001	
Baltimore, MD	3,845	
Washington, DC	3,761	
New York, NY	3,388	
Oakland, CA	2,745	
Brooklyn, NY	2,482	
Atlanta, GA	2,249	
Sub Total heavy rail	47,268	3,939
Grand Total all rail systems	134,433	4,337
U.S. Dept. of Energy, Transit System Energy Use.		
Average auto		3445
Average transit bus		4323
Source: U.S. Dept. of Energy Data Book, tables 2.12 & 2.13		

February 6, 2009

Part VI — "Strategic misrepresentation" in the Draft EIS

The University of Aalborg, Denmark, conducted the most extensive international study ever of actual versus estimated costs in transportation infrastructure development.[1] A summary of the study was published in the American Planning Association Journal. The study concluded:

> *"Based on a sample of 258 transportation infrastructure projects worth US$90 billion and representing different project types, geographical regions, and historical periods, it is found with overwhelming statistical significance that the cost estimates used to decide whether such projects should be built are highly and systematically misleading. Underestimation cannot be explained by error and is best explained by strategic misrepresentation, that is, lying. The policy implications are clear: legislators, administrators, investors, media representatives, and members of the public who value honest numbers should not trust cost estimates and cost-benefit analyses produced by project promoters and their analysts."*

Other distinguished and authoritative transportation experts have warned about cost misrepresentations in rail projects. Dr. John Kain, Chair Emeritus of Harvard's Economics Department, wrote *Deception in Dallas*, Dr. Don Pickrell, Chief Economist of the U.S Department of Transportation's Volpe Center, wrote what is known as the *Pickrell Report*, Dr. Martin Wachs, Head of Rand Corporation's Transportation practice and Chair Emeritus, Department of Urban Planning, UC-Berkeley, wrote *When planners lie with numbers,*" and there have been many, many others.

The Draft EIS needs to make clear the amount of scholarly literature produced by academic transportation experts[2] detailing the misrepresentations by promoters of rail transit and the virtual

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1 Flyvbjerg et al. *"Underestimating Costs in Public Works Projects: Error or Lie?"* American Planning Association Journal. Summer 2002.

2 Hall, P. (1980). Great planning disasters. Harmondsworth, UK: Penguin Books. Penguin Books.
Hall, P. (n.d). Great planning disasters revisited. Unpublished manuscript, Bartlett School, University College, London. UK: Cambridge University Press.
Holm, M. K. S. (1999). Inaccuracy of traffic forecasts and cost estimates in Swedish road and rail projects. Unpublished manuscript, Aalborg University, Department of Development and Planning.
Hufschmidt, M. M., & Gerin, J. (1970). Systematic errors in cost estimates for public investment projects. In J. Margolis (Ed.), The analysis of public output (pp. 267–315). New York: Columbia University Press.
Kain, J. F. (1990). Deception in Dallas: Strategic misrepresentation in rail transit promotion and evaluation. Journal of the American Planning Association, 56(2), 184–196.
Leavitt, D., Ennis, S., & McGovern, P. (1993). The cost escalation of rail projects: Using previous experience to re-evaluate the calspeed estimates (Working Paper No. 567). Berkeley: Institute of Urban and Regional Development, University of California.
Mackie, P., & Preston, J. (1998). Twenty-one sources of error and bias in transport project appraisal. Transport Policy, 5(1), 1–7.
Merewitz, L. (1973a). How do urban rapid transit projects compare in cost estimate experience? (Reprint No. 104). Berkeley: Institute of Urban and Regional Development, University of California.
Merewitz, L. (1973b). Cost overruns in public works. In W. Niskanen, A. C. Hansen, R. H. Havemann, R. Turvey, & R.Zeckhauser (Eds.), Benefit cost and policy analysis (pp. 277–295). Chicago: Aldine.
Nijkamp, P., & Ubbels, B. (1999). How reliable are estimates of infrastructure costs? A comparative analysis. International Journal of Transport Economics, 26(1), 23–53.
Pickrell, D. H. (1990). Urban rail transit projects: Forecast versus actual ridership and cost. Washington, DC: U.S. Department of Transportation.
Pickrell, D. H. (1992). A desire named streetcar: Fantasy and fact in rail transit planning. Journal of the American Planning Association, 58(2), 158–176.
Simon, J. (1991). Let's make forecast and actual comparisons fair. TR News, 156, 6–9.
Skamris, M. K., & Flyvbjerg, B. (1997). Inaccuracy of traffic forecasts and cost estimates on large transport projects. Transport Policy, 4(3), 141–146.
Szyliowicz, J. S., & Goetz, A. R. (1995). Getting realistic about megaproject planning: The case of the new Denver International Airport. Policy Sciences, 28(4), 347–367.
Wachs, M. (1986). Technique vs. advocacy in forecasting: A study of rail rapid transit. Urban Resources, 4(1), 23–30.
Wachs, M. (1989). When planners lie with numbers. Journal of the American Planning Association, 55(4), 476–479.

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complete lack of such literature defending them. The public needs to be so sufficiently informed about it that no one will be able to complain in the future that they were not warned.

> *NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.*[3]

There are many misleading elements of the Draft EIS. There are both errors of commission and omission and are dealt with below under the following headings:

1. Omissions of relevant material.
   a) OMPO surveys
   b) Future traffic conditions vs. today omitted.
   c) The Draft EIS omits relevant information about highways.
   d) Change of observed volumes without discussion
   e) Does not discuss the differences between Draft EIS and Alternatives Analysis
2. Misleading purpose and need statement.
3. Renderings that do not match reality

1. Omissions of relevant material

a) OMPO surveys:

In its entirety, this is how the Draft EIS describes the 2004 Oahu MPO Survey[4]:

> *As part of its work to update the Regional Transportation Plan, the O'ahu Metropolitan Planning Organization (O'ahuMPO) surveyed O'ahu residents about transportation issues in 2004. The survey results identified traffic congestion during the commute period in the study corridor extending from 'Ewa and Central O'ahu to Downtown Honolulu as the biggest concern. Nearly twice as many residents responded that improving transit was more important than building more roadways. Seventy percent of the respondents believed that rail rapid transit should be constructed as a long-term transportation solution, and 55 percent supported raising taxes to provide local funding for the system. (Draft EIS p. 1-3).*

From this one would not gather that the same Oahu MPO Survey Summary said in its entirety:

> *"Based on the survey, most residents appear to accept the necessity of tax increases to fund specific capital projects, such as new road-building, road widening and extensions. Between a Rapid Rail system and the BRT, residents do not indicate a strong preference for one over the other. There is broad support for either system, generally, with strongest support for the Rapid Rail system coming from the Ewa/Kapolei and Leeward areas of Oahu."*

Or that in a later page it would summarize question responses as follows:

- *60% would reportedly support a tax hike for road widening or extensions.*
- *59% would support a tax hike for new road-building.*
- *57% would back a tax hike for a rail rapid transit system.*

Wachs, M. (1990). Ethics and advocacy in forecasting for public policy. Business and Professional Ethics Journal, 9(1–2), 141–157.

Walmsley, D. A., & Pickett, M. W. (1992). The cost and patronage of rapid transit systems compared with forecasts (Research Report 352). Crowthorne, UK: Transport Research Laboratory.

2 Edwards, Chris. Government Just Can't Contain Itself. Cato Institute. September 23, 2003

3 http://edocket.access.gpo.gov/cfr2002/julqtr/40cfr1500.1.htm

4 www.honolulutraffic.com\issuessurvey.pdf

- *54% would back tax increases to improve the bus system.*

Adding to these errors of omission is that the City avoided altogether discussing a subsequent 2006 OMPO Survey[5]. Here is one excerpt from this Survey's Summary:

> *Oahu traffic and, in particular, congestion in Ewa/Kapolei, remains a key concern of residents. The key priorities are: (1) road-widening of the H-1 in the Honolulu corridor; and (2) widening Farrington Highway in Kapolei and Waianae.*
>
> *Relative to Rail Rapid Transit, over one-third of Oahu residents indicated that they would use the system on a regular basis.*
>
> *There is also majority support for the concepts of HOT lanes from Ewa to downtown and for a Pearl Harbor bridge or tunnel, but not for funding construction via higher taxes.*

b) Future traffic conditions versus today's traffic omitted

From the beginning the City and Parsons Brinckerhoff have misled the public into believing that rail transit will relieve congestion.

Far from *"supporting proactive public involvement"*[6] our elected officials and their appointees and consultants have continually alluded to the idea that rail transit will result in traffic congestion relief even though the Alternatives Analysis and the Draft EIS both show that traffic congestion will get significantly worse with the rail transit alternative than it is today.

A significant omission in the Draft EIS is that nowhere does it discuss future highway conditions with rail. In fact, it deliberately goes out of its way to avoid doing so. For example, the discussion of traffic conditions in section 3 assesses future traffic conditions for No-Build but not with the Build alternative. Nor does the Summary of Findings on page 3-53, which is shown below.

> *Existing Conditions: Increasing traffic congestion and constrained transit operating conditions have reduced system reliability and mobility for all travelers.*
>
> *Effects of the No Build Alternative: Traffic congestion would worsen, even with $3 billion in other planned roadway improvements, affecting mobility and reliability for all travelers.*
>
> *Effects of the Build Alternatives: [No mention of traffic congestion].*

The omission of future traffic congestion with the Build Alternative compared to the congestion that exists today in both the body and the summary shows that it was deliberate.

In addition, the Draft EIS has avoided any discussion of the new 2006 *National Strategy to Reduce Congestion on America's Transportation Network*[7]. Its preamble reads,

> *Congestion is one of the single largest threats to our economic prosperity and way of life. Whether it takes the form of trucks stalled in traffic, cargo stuck at overwhelmed seaports, or airplanes circling over crowded airports, congestion is costing America an estimated $200 billion a year.*
>
> *Each year, Americans lose 3.7 billion hours and 2.3 billion gallons of fuel sitting in traffic jams and waste $9.4 billion as a result of airline delays. Worse, congestion is affecting the quality of Americans lives by robbing them of time that could be spent with families and friends.*

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5 http://www.honolulutraffic.com/Trans_Proj_Surv_Results_2006.pdf

6 It is the policy of the … Federal Transit Administration (FTA) to aggressively support proactive public involvement at all stages of planning and project development. *http://www.fhwa.dot.gov/environment/pi_pol.htm*

7 http://isddc.dot.gov/OLPFiles/OST/012988.pdf

> *Congestion is not a fact of life. It is not a scientific mystery, nor is it an uncontrollable force. Congestion results from poor policy choices and a failure to separate solutions that are effective from those that are not.*

Given the current traffic conditions in Honolulu, and also the following NEPA requirement, one would think the new policy worthy of mention, if not analysis:

> *An agency shall identify and discuss all such factors including any essential considerations of national policy which were balanced by the agency in making its decision and state how those considerations entered into its decision. 40CFR1505.2(b)*

c) Highway capacity data omitted

In the Alternatives Analysis, Table 3-12, highway capacity data was given for each of the corridor's highway components. This has been omitted and makes it difficult to understand what caused the dramatic reductions in the Draft EIS from the Alternatives Analysis in forecast traffic volumes at the various screenlines.

For example, the Kalauao screenline in the Alternatives Analysis shows that the observed traffic volume for 2003 during the peak hour slightly in excess of the highway capacity shown, which motorists in the corridor would find accords with experience. However, the Draft EIS observed volume for 2005 shows an eight percent reduction in traffic from 18,870 to 17,300, and less than the highway capacity shown in the Alternatives Analysis, which certainly does not accord with experience.

Kalauao Screenline AM Peak Head bound volumes AA= Alternatives Analysis			Koko
AA Highway Capacity	AA 2003 Actual	AA 2030 No-Build	AA 2030 Build
18,450	18,870	28,023	26,101
Draft EIS Highway Capacity	Draft EIS 2005 Actual	Draft EIS 2030 No-Build	Draft EIS 2030 Build
N/A	17,300	20,800	18,910

Source: Alternatives Analysis, Table 3-12, Draft EIS, Tables 3-12 & 3-20

Further, there is a 28 percent reduction in projected traffic volume for the Draft EIS 2030 Build Alternative compared with that of the Alternatives Analysis from 26,101 down to 18,910. No explanation is given for this.

We know that with no planned widening of H-1 the freeway cannot accommodate either the 18,910 given in the Draft EIS, let alone the 26,101 vehicles per hour projected by the Alternatives Analysis. Are we to assume that the City and Parsons Brinckerhoff recognize that the highways will be excessively congested and that the excess traffic will be accommodated in extended shoulder periods?

In other words, those who currently leave home at 5:00 AM to miss the worst of the traffic will, in the future, with rail have to leave home at 4:00 AM — or earlier?

If this is the case, why does the City not say so? Or is it once again to avoid any discussion of traffic congestion relative to today's unbearable levels?

2. Misleading purpose and need statement:

> *Congestion is not a scientific mystery, nor is it an uncontrollable force. Congestion results from poor policy choices and a failure to separate solutions that are effective from those that are not.*[8]

[8] http://isddc.dot.gov/OLPFiles/OST/012988.pdf

The relevant federal requirements regarding the "purpose and need statement" are as follows:

> *... the lead agency shall provide an opportunity for involvement by ... the public in defining the purpose and need for a project ... The statement of purpose and need shall include a clear statement of the objectives that the proposed action is intended to achieve ... (SAFETEA-LU Sec. 6002).*
>
> *"FHWA and FTA review would include making sure that objectives or choices derived from the transportation plan were: based on transportation planning factors established by Federal law; reflect a credible and articulated planning rationale; founded on reliable data; and developed through transportation planning processes meeting FHWA and FTA statutory and regulatory requirements. In addition, the basis for the goals and choices must be documented and included in the NEPA document."*[9] (emphasis added)
>
> *Consistent with NEPA, the purpose and need statement should be a statement of a transportation problem, not a specific solution ... A purpose and need statement that yields only one alternative may indicate a purpose and need that is too narrowly defined.*[10]

The NEPA regulations require that,

> *Environmental impact statements "shall be written in plain language ... so that ... the public can understand them."*[11]

The purpose statement in the Draft EIS is presented here in its entirety while the need statement that follows is truncated in the interests of space:

> *1.7 Purpose of the Project*
>
> *The purpose of the Honolulu High-Capacity Transit Corridor Project is to provide high-capacity rapid transit in the highly congested east-west transportation corridor between Kapolei and UH Manoa, as specified in the O'ahu Regional Transportation Plan 2030 (ORTP) (O'ahu MPO 2007). The project is intended to provide faster, more reliable public transportation service in the study corridor than can be achieved with buses operating in congested mixed-flow traffic, to provide reliable mobility in areas of the study corridor where people of limited income and an aging population live and to serve rapidly developing areas of the study corridor. The project also would provide additional transit capacity, an alternative to private automobile travel, and improve transit links within the study corridor.*
>
> *Implementation of the project, in conjunction with other improvements included in the ORTP, would moderate anticipated traffic congestion in the study corridor. (Draft EIS p. 1-19.)*

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9 http://www.fhwa.dot.gov/hep/plannepa050222.pdf

10 http://edocket.access.gpo.gov/2007/pdf/07-493.pdf Federal Register / Vol. 72, No. 30 / p. 7282.

11 40 C.F.R. § 1502.8

> *1.8 Need for Transit Improvements*
>
> *There are several needs for transit improvements in the study corridor. These needs are the basis for the following goals:*
>
> *Improve corridor mobility*
>
> *Improve corridor travel reliability*
>
> *Improve access to planned development to support City policy to develop a second urban center*
>
> *Improve transportation equity (Draft EIS, p. 1-20/21)*

The main misrepresentation in this purpose and needs statement is that it is in total conflict with what the public understands. The Draft EIS says that the "purpose and need" is a need for "transit improvements" and the purpose is to build "rapid transit."

Aside from the misrepresentation the statement is at variance with FTA/FHWA guidance,

> *Consistent with NEPA, the purpose and need statement should be a statement of a transportation problem, not a specific solution.*[12]

The public believes that the purpose of the project is to reduce traffic congestion. This is reinforced in the Draft EIS by the following:

> *Total congestion would be reduced by 21 to 23 percent with the Build Alternatives."S-5*
>
> *"Implementation of the project, in conjunction with other improvements included in the ORTP, would moderate anticipated traffic congestion in the study corridor." (p.1-19)*

The general understanding of the public is that the purpose of the Project is to reduce traffic congestion in the Corridor so it less than today's unbearable levels and also, *incidentally*, provide improved public transportation.

> *"The statement of purpose and need shall include a clear statement of the objectives that the proposed action is intended to achieve ... " SAFETEA-LU Sec. 6002.*

When does one hear the ordinary citizen use phrases like "Improve corridor mobility," "Improve corridor travel reliability," and "moderate anticipated traffic congestion"?

This is jargon for those working in the transportation industry; it is not understood by the average resident unless they habitually parse sentences in City documents. To the average citizen, to moderate or reduce traffic congestion means relative to what they experience today — and not some projected condition in the future unless explicitly told so.

A "clear statement" would say instead that, "It is not the Purpose of the Project to reduce traffic congestion below today's levels, it is to provide an alternative to automobile travel." That the language is not *a clear statement* understandable to ordinary citizens proves that the process lacks *public involvement.* To *involve* is totally different than to *inform*.

The intent of the statute is for the public to be *involved* and to this end it is essential that the language be clear. Instead, this jargon lulls the average citizen into believing that the primary purpose of the Honolulu High-Capacity Transit Corridor Project is to reduce traffic congestion from current levels.

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[12] http://www.environment.fhwa.dot.gov/strmlng/linkingtrans.asp

Lacking an FTA definition of *involvement* we have to fall back on the dictionary definition, which tells us that to *involve* is,

> "To engage as a participant; embroil: *involved the bystanders in his dispute with the police.*
> "To connect closely and often incriminatingly; implicate: *evidence that involved the governor in the scandal.*
> "To influence or affect: *The matter is serious because it involves your reputation.*
> "To occupy or engage the interest of: *a story that completely involved me for the rest of the evening.*"[13]

To make clear the distinction: If you are *involved* in a murder, you may be hanged. If you are only *informed* of a murder you will not be.

It is derelict to omit any discussion of traffic relief relative to today's congestion in the Draft EIS especially since there has been a constant refrain from City officials implying that the purpose and need is for traffic relief.

To be a "clear statement," the purpose and need statement requires it to say that, "It is not the Purpose of the Project to reduce traffic congestion below today's levels; it is to provide an alternative to automobile travel" and, "After the rail transit line opens, traffic congestion will be worse than it is today, though somewhat less than what it might be otherwise."

The NEPA regulations require that, "*Environmental impact statements shall be concise, clear, and to the point ...*"[14] and the purpose and need statement is the complete antithesis of this.

3. Renderings misrepresent reality

See this issue covered under Part II, Insufficient consideration of elevated rail impacts. Pages 2:7

[13] Excerpted from the American Heritage® Dictionary.
[14] 40CFR1500.2 (b)

February 6, 2009

Part VII — Misrepresentations outside of the Draft EIS

We understand that federal officials do not wish, and are possibly not even empowered, to involve themselves in local politics. However, the current situation concerning the City administration misleading the public is more serious than is usually the case.

When public support for a project has occurred only because of the voluminous amount of lies and misrepresentations made by the local agency, then it is incumbent upon the federal agency to not approve such a project until the situation has been mitigated. Certainly this would accord with the spirit and purpose of the environmental statutes and the responsibility of the lead agency.

For example, the federal government directs the Office of Management and Budget (OMB) to:

> *provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies.* '[1]

The NEPA statute and associated laws and regulations are replete with language about "objectivity," "scientific evaluation," and "integrity."

What is the point of the lead agency meticulously ensuring that the integrity of information in the Draft EIS (and the thousands of pages of appendices and technical memoranda) which most of the public will never read, if the lead agency then knowingly evades dealing with the fact that the public has been totally misled about the benefits and disbenefits of the project?

Does the agency want an environmentally destructive alternative chosen over an equally effective, but less costly, and less environmentally intrusive one?

Citizens of the City and County of Honolulu have been consistently misled not only by how the Project will reduce traffic congestion, but also the other purported benefits of the rail transit project, such as the presumption of energy savings, the merits of alternatives, the "success" of Mainland public transportation agencies and the dislike of Oahu residents for new highways.

This has not occurred through the occasional "slip of the tongue" statement but by a deliberate coordinated and continuous barrage of half-truths and deception in public meetings, through millions of dollars of media purchases[2] in TV, radio, newspapers, and in public "bully pulpit" pronouncements by the Mayor, our Congressional delegation, city employees, city transit consultants and their sub-consultants.[3]

City taxpayers and have spent $2.4 million promoting transit through June 30 last year and we expect that when the final report comes in on their spending before the November 4 election, it will add another million dollars to the City total. In addition, the Mayor spent a great deal of his campaign money promoting his rail idea. Others rail supporters, Go Rail Go, Support Rail Transit, and the Carpenters Union between them spent a total of $1.1 million promoting rail in the November 4 referendum.

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1 Public Law 106–554; H.R. 5658). Section 515. See http://www.whitehouse.gov/omb/fedreg/reproducible2.pdf

2 *Mayor, rail supporters outspent opponents.* Honolulu Advertiser. December 9, 2008. http://www.honoluluadvertiser.com/article/20081209/NEWS05/812090355/-1/NEWS05

3 "Proponents and opponents of Honolulu's planned $3.7 billion commuter rail system have saturated Hawai'i airwaves with advertising." http://the.honoluluadvertiser.com/article/2008/Jul/29/ln/hawaii807290361.html

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A major financial support for Go Rail Go was Parsons Brinckerhoff.[4] We do not know their total contribution since half of Go Rail Go's contributions were made before the ballot issue was certified and before that time contributions did not have to be enumerated. Countering the over $5 million spent promoting rail was the puny $100,000 spent by the Stop Rail Now organization.

Examples of these misleading statements are detailed in Appendix D.

The most important of the misstatements are those relating to traffic congestion. The public believes that the "purpose and need" of the Project is to reduce traffic congestion in the Corridor to less than today's unbearable levels and also, *incidentally*, provide improved public transportation.

As evidence of this, 73 percent of residents in a Honolulu Advertiser poll of July 27, 2008, said they agreed with the statement,

> *"We need a light rail system in order to reduce traffic congestion and commute times along H-1"* [5]

Their misunderstanding has been encouraged by our elected officials, their employees and contractors. Their public statements to gain support for rail transit constantly imply, or state outright, that the need is for traffic congestion relief. In his 2008 State of the City speech, the Mayor said, "traffic congestion is the most significant challenge to our quality of life."[6] And in a policy statement, "Our residents … are crying for relief from traffic congestion."[7]

Our elected officials (and the public) know precisely what is needed for "improving transportation conditions."

City accuses us of lies and misrepresentations:

The City Administration's Transportation Director Wayne Yoshioka[8] took the position that the opposition (Stop Rail Now and Honolulutraffic.com) was putting out so many "lies and misrepresentations" that the city had to respond to this 'misleading and false information' with the truth." He added that "most of their statements are not true."

This was the most outrageous action by the City yet. On September 3, 2008, the City Council's Executive Matters Committee discussed a bill that would restrict the use of taxpayer funds for advocacy of rail transit by the Administration.

We responded that all Honolulutraffic.com's information was footnoted and sourced and if anyone is lying it is the city.

Yoshioka was unwilling to specify what our lies and misinformation were but the Committee Chair eventually persuaded him to agree to supply a list of 20 such "lies and misrepresentations" within five working days. Fortunately, all of this is on video. Three weeks later he produced them.

There is nothing in the list he produced that could reasonably be called a lie or misrepresentation. For example, he states that our comment, "The city admits future traffic congestion will be worse

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4 http://www.honoluluadvertiser.com/article/20081209/NEWS05/812090355/-1/NEWS05
Also see the Campaign Spending Commission Reports: https://nc.csc.hawaii.gov/NCFSPublic/ReportList.php

5 www.honolulutraffic.com/HADV_poll_p9.pdf

6 http://www.co.honolulu.hi.us/mayor/soc2008.pdf

7 http://www.honolulu.gov/refs/csd/publiccom/honnews06/mayorofferscompromiseontransittaximasse.htm

8 Since it is a two hour tape we have provided a time line in hours and minutes below:
0:24 — DTS Director Yoshioka begins testimony on bill 01-189 regarding rail transit advocacy.
1:08 — Corporation counsel begins testimony.
1:32 — Cliff Slater begins testimony.
1:40 — Council begins discussion and with legal counsel.
2:08 — End of proceedings.

with rail than it is today" was, "… a cleverly crafted statement that knowingly uses only part of the information available. The Alternatives Analysis shows that a fixed guideway will reduce future traffic congestion between Kapolei and Honolulu by 11 percent."

This is pure spin. He is not denying that traffic congestion will be worse in the future with rail than it is today, only that it will be 11 percent better than it would be without rail. In fact, he and Mike Schneider of InfraConsult finally admitted we were right during a debate on KHVH radio some weeks later. The crucial four minute clip of this admission is available. We have detailed our responses to this and all his other charges in Appendix D.

The issue regarding spin, lies and misrepresentation is that it has been used to garner support for rail. The culmination was that after all this the City could only get 50.4 percent of the voters to approve the rail referendum. It begs the question of what would have been the support if the City had told the truth.

While strictly speaking these misrepresentations are not part of the NEPA EIS process, these misleading activities by Hawaii government officials are of great import. It is one matter to attempt to ensure accuracy and objectivity in the Draft EIS, but can a federal agency evade evidence of local government actions that seek to undermine the EIS process?

What is the point of following the NEPA process to the letter and spirit of the law when local political authorities and their campaign contributors, consultants and all their employees are conspiring to undermine the NEPA process by spending literally millions of dollars lying about traffic congestion relief, among other matters? When Parsons Brinckerhoff is giving $25,000 to fund Go Rail Go efforts to persuade voters to vote for rail with gross misrepresentations of the facts?

It is one thing that the FTA not involve itself in local political matters but it is quite another when their own federal environmental process is being undermined. It is not being ignored — because FTA is fully aware of what has transpired. Rather, the undermining of the process is being evaded.

Appendix D

Following are a few examples of the many claims of prospective traffic relief offered by the City administration.

Mayor Hannemann, KGMB interview, 10/30/2008, "People are tired of being stuck in traffic and they want solutions."

Bill Brennan op/ed in Hawaii Reporter 6/26/08. "Cities with large, well-established rail systems have significantly .. , less traffic congestion ... A comprehensive rail transit system can reduce per capita congestion delays by half, and even greater reductions probably occur on specific corridors." http://www.hawaiireporter.com/story.aspx?6847fd0b-ddce-41c1-82e9-3dcd7335de50

Mayor Hannemann's 2008 State of the City Address, "I've said time and time again that traffic congestion is the most significant challenge to our quality of life ... the fixed guideway presented the most effective means of relieving traffic congestion and accommodating the anticipated growth in West and Central Oahu.

Mayor Hannemann said, "Our residents, particularly those in Leeward and Central Oahu, are crying for relief from traffic congestion. A mass transit system represents our best near- and long-term solution to this worsening problem and I'd hate to see our efforts derailed because of

disagreements over who-does-what .... any delays in implementing the tax and completing our planning will delay relief for tens of thousands of commuters who are squandering hours of precious time in traffic." City Hall press release: Mayor offers compromise on transit tax impasse. June 21, 2006.
http://www.honolulu.gov/refs/csd/publiccom/honnews06/mayorofferscompromiseontransittaximpasse.htm

This video of Mayor Hannemann and Rep. Neil Abercrombie's city hall "Traffic sucks!" rally held on December 5th, 2005, typifies the grossly misleading statements emanating from our elected officials.
http://mfile.akamai.com/12891/wmv/vod.ibsys.com/2005/0707/4695365.200k.asx

"[Hannemann] said the [rail] system will help all parts of the island, easing traffic overall because 'there'll be less cars on the road. '"
http://the.honoluluadvertiser.com/article/2005/May/12/In/In02p .html

Mayor's Press Secretary: "Slater misrepresents just about everything Mayor Mufi Hannemann, Transportation Services Director Ed Hirata and other supporters of transit have said, from the timing of federal requirements to tax calculations, highway capacity and a rail system's potential to ease traffic congestion."
http://the.honoluluadvertiser.com/article/2005/Aug/10/op/508100321.html

"We're poised to break ground for a long-awaited fixed guideway system that will reduce the time commuters spend in their cars and away from their families ... " Mayor Hannemann, editorial, Honolulu Advertiser, June 29, 2008, Living Green section.

"Mayor Mufi Hannemann chided Lingle at the rally and said the city needs a rail system to alleviate increasing traffic congestion. U.S. Rep. Neil Abercrombie, D-Hawaii, also blasted a possible veto and said that he and the rest of Hawaii have had enough of the traffic problems. He said commuters are fed up and don't need any more "Lingle lanes" filled with traffic congestion."
http://www.bizjoumals.com/pacific/stories/2005/07/04/daiIy18.html?t=printable

"How does rail transit help reduce traffic congestion? ... Building rail transit now is the most cost-effective way to avoid even more congestion in the future ... This brochure is provided by the City & County of Honolulu as part of the public information program required by the Federal Transportation (sic) Administration." City's 8-page II" x 12" full color glossy brochure inserted in the Honolulu Advertiser, Honolulu Star-Bulletin and the weekly, Mid-Week, circa. October 19, 2008. Combined circulation was about 500,000. To add insult to injury the brochure was marked, "Paid for by City taxpayers."

"The [rail] project shrinks future traffic congestion by more than 20 percent." Mayor Hannemann quoted in the Honolulu Advertiser on November 2, 2008, under a bold above the fold headline, "Study predicts rail to ease traffic 23%". Honolulu Advertiser, November 2, 2008. p. A1

"Rail transit can improve the quality of life for residents across O'ahu by reducing traffic congestion ... and will shrink traffic congestion by at least 21 percent as it matures ... my hope is that this is an action we collectively take for the future — for the generations of children to come who deserve an island home where they can live, work and raise their families free from the grind of constant traffic gridlock." Senator Daniel K. Inouye. *Draft EIS bodes well for transit.* Honolulu Advertiser, November 2, 2008. p. B1.

"What's more, today's rail technology is already proven and successful, like Vancouver's SkyTrain, the Trax system in Salt Lake City, Portland's MAX Train, and the Washington, D.C. Metro. When each of these systems was first proposed, there were questions and concerns raised. But today, they are vital parts of their cities' overall transportation solutions: reducing traffic ... "

Radio commercials repeated this endlessly in the weeks leading up to the November 4 rail referendum. Of course, the facts are that traffic congestion in these cities since they built rail is as bad as other cities – if not worse, according the Texas Transportation Institute.

The Mayor's behavior during the 2008 mayoral candidates' debates exemplified the refusal of city officials and their contractors to admit that traffic congestion will get worse with rail. During the September 9 debate, Dr. Panos Prevedouros asked the Mayor, "Your own city studies show that traffic congestion in the future, with rail, will be far worse than it is today. Is that true? Yes or No?" The Mayor totally dodged this because he knows full well that the answer is "Yes" but the viewers did not know that traffic congestion will indeed get worse with rail. Watch him duck and dive during this video.

Other aspects of misrepresentations by the city during the rail transit debate follow:

The following transcript is of a one-minute City radio commercial that ran incessantly on many Honolulu radio stations in the months leading up to the referendum vote:

> TRANSCRIPT: *"Will mass transit attract riders in Honolulu? Actually, we already know the answer. Honolulu has the fourth highest transit ridership per capita in the nation. People here already know that mass transit, like the bus, is a great way to deal with traffic, parking and save money. So, how about rail transit, which will be even faster and more efficient? Again, we don't have to guess. Look at how people in cities nationwide are responding to fuel costs and traffic hassles. In Portland, San Francisco, New York and Washington, D.C., rail ridership has increased more than five percent in the last year. In Los Angeles, a city that loves its cars, rail ridership is up over fifteen percent. In Seattle, it's up twenty-eight percent. In Charlotte, thirty-four percent. And in Sacramento, rail ridership has increased forty-three percent in just a year. It's too bad we don't already have rail transit. The next best thing we can do is start building it now. To learn more, visit Honolulu Transit.org."*

The above statistics were repeated in the City's newspaper advertising. For example, the Honolulu Star-Bulletin, October 14, 2008.

The following paragraphs show the city's statement numbered and in quotes followed by our comments. Our data is drawn from the American Public Transportation Association (APTA) website. For comparison calendar years 2007 vs. 2006, the file is found at http://www.apta.com/research/stats/ridership/riderep/documents/07q4rep.pdf The latest available data is that of the 1st quarter of 2008 and the file comparing it with the same quarter of 2007 is at:http://www.apta.com/research/stats/ridership/riderep/documents/08q1rep.pdf

#1: "In Los Angeles, a city that loves its cars, rail ridership is up over fifteen percent."

For 2007 versus 2006, total public transportation in Los Angeles was down 1.78 percent, heavy rail was up 2.03 percent, light rail was up 0.81 percent and buses were down 2.53 percent. For the first quarter 2008, heavy rail was up 5.37 percent, light rail was up 1.77 percent and bus ridership was down about 7 percent (two categories). Los Angeles total public transportation was down 4.57 percent.

#2: "In Seattle, [rail ridership] it's up twenty-eight percent."

This is a statement that is accurate but misleading. For 2007, Seattle's light rail was up 3.8 percent and commuter rail commuter rail (*real trains, long distance between stops*) is up 27 percent, but it is a minor issue since it carries just 1.5 percent of all public transportation in Seattle. The primary reason for the great increase in this minor commuter rail line is that there have been extensive increases in commuter rail service during the past two years. See: http://en.wikipedia.org/wiki/Sounder_commuter_rail

#3: "In Charlotte, [rail ridership is up] thirty-four percent."

> Charlotte's rail line did not open until November 2007 and so there is nothing to compare it to. The supposed 34 percent increase is a pure figment of someone's imagination.

#4: "And in Sacramento, rail ridership has increased forty-three percent in just a year."

> For the year 2007, Sacramento's rail was up 1.41 percent over the prior year. For the first quarter of 2008 rail was up 3.12 percent.

The above statements are not only inaccurate but they mislead citizens into believing that recent increases in gasoline prices have driven motorists to public transportation far more than they actually have. The national experience is that the first quarter of 2008 shows a 3.3 percent increase in boardings over the year earlier quarter. Some cities were up slightly more, while others experienced declines.

Source: http://www.apta.com/media/releases/080602_ridership_report.cfm

The City repeated these data in ads placed in local newspapers in 2008, for example, in the Honolulu Advertiser, October 13, 2008. p. *A9.* And since our local newspapers will print the City's official line without any research whatsoever this gets repeated, as for example, in the main editorial of May 15, 2008.

InfraConsult LLC is a consultant to the city whose management is comprised of former Parsons Brinckerhoff employees. They run the "Public Outreach Program" for which they hired Elisa Yadao for $500,000 as its program manager.

Dr Prevedouros had written a paper on 20 reasons why we should choose bus technology. That was criticized by InfraConsult's Managing Director, Michael Schneider, and below we comment on his criticism. The more egregious of his misleading comments are shown below as EXCERPT followed by OUR COMMENT.

> EXCERPT: *"Virtually every city in the U.S. with a population over 750,000 people has both buses and some form of rail technology in operation, construction, or in the advanced planning stage… Every major city in the world, whether a "capital city" or not, has some form of rail system. The size of the rail system planned for Honolulu is appropriate for the community's size."*

OUR COMMENT: The spin here is to use the term "city" whereas all normal discussions of rail systems use "metro area" or "urban area," which are contiguous urban areas almost regardless of political division. Thus, the San Francisco Bay Area contains all of the contiguous urban areas within the Bay Area. Portland's urban area consists of Portland and the surrounding counties.

When we review Honolulu's size relative to other metro areas we find that we are the 56th largest in the U.S. and that if we were to build any kind of rail line we would be the smallest in population size. In fact, most of the metro areas larger than Honolulu do not have rail lines.[9]

The next largest city that has a totally grade-separated rail line powered from a third rail, usually termed 'heavy rail,' is Miami whose population is more than four times that of Honolulu.

The other issue of appropriateness is that of cost. The cost of the proposed Honolulu rail line is out of all proportion to the population and tax base. The table on page 24 hows the relative local tax burden falling on Oahu taxpayers as compared to other communities. Honolulu will likely receive only about 18 percent of capital costs from federal funding.

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[9] List of the 60 largest U.S. Metropolitan Areas from the 2000 Census. Some three more metro areas have added rail since the chart was prepared but that does not change the statement.

As the primary consultants, Parsons Brinckerhoff has been active in spreading misinformation about rail on various radio programs.

For example, on this radio program, Parsons Brinckerhoff's Steve Hogan discussed transit with Dr. Prevedouros, UH Professor of Traffic Engineering, on the Rick Hamada Show on KHVH 830 AM for an hour on May 12, 2008. The full discussion may be heard on the podcast made of it.

During *the radio program Hogan said that it took six lanes of freeway to have the same carrying capacity as rail transit.*

Our comment: A single lane of busway on the New Jersey I-495 carries 32,000 passengers on buses per hour during the peak hours.[10] This lane carries more passengers per hour than any rail line in the U.S. with the sole exception of one line of the New York City subway. So it is nonsense to talk about rail having more capacity than Bus/Rapid Transit.

Further, Parson's Brinckerhoff's own *HOV Manual* says:

> *"(This) comparison of person moving capacities for various U.S. rail and HOV projects...appears to cut through the myth that HOV facilities (e.g. busways) do not have the person carrying equivalent of rail lines. Both modes can serve the person carrying capacity needs of about any corridor in North America."*[11]

Hogan then argued that there was no space to put the HOT lanes in Honolulu.

Our comment: Parsons Brinckerhoff designed the Managed Lane Alternative and included it in the Alternatives Analysis with maps and engineering drawings showing that it fit.

Hogan later tried to belittle the multiple on/off ramps Dr. Prevedouros has proposed for the HOT BRT alternative by saying that on the Tampa Expressway there's no stopping after you get on, until you get off at the other end.

Our comment: The fact is that the Tampa Expressway has multiple on/off ramps and a map of them may be seen on the on/off ramps page. The Expressway's Director of Planning sees no difficulty with having even more on/off ramps.

Then Steve Hogan argued that rail is more fuel efficient than autos on HOT lanes.

Our comment: Only when New York City subways are included using weighted averages do rail transit lines show as more energy-efficient than cars. See the arguments on this issue on page xxx

The efficient systems, such as New York, have a great deal of traffic going in both directions in their core areas in the off-peak while the energy-inefficient systems, such as Miami, tend to be those that are highly directional during the peak hours — full going from suburbs into town in the morning and empty going back out, with the opposite being true in the afternoon while there is little traffic during the middle of the day.

For a meaningful assessment of what Honolulu is likely to experience we must look at the experience of those modern systems built since 1970.

The average rail line is less energy efficient than the automobile (3,496 for cars and 4,329 for light trucks and SUVs) according to the U.S Department of Energy as shown and described in the chart to the left[12] and in other DOE publications.[13]

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[10] Transportation Research Board's Highway Capacity Manual. Table 1-13.

[11] Charles A. Fuhs. *High Occupancy Vehicle Facilities.* Parsons, Brinckerhoff. December 1990.

[12] http://www1.eere.energy.gov/vehiclesandfuels/facts/favorites/fcvt_fotw221.html
http://www.carkeys.co.uk/road_test/hyundai/14074.asp

[13] http://cta.ornl.gov/data/tedb27/Edition27_Chapter02.pdf Tables 2.12 & 2.13

While it is still possible that Honolulu's prospective rail line could be more efficient than an automobile this is not likely. It is especially unlikely when the target year for discussion is 2030 and automobiles are getting far more fuel efficient every year and trains are not.

Then Hogan said that even in Tampa the Expressway would today cost 3.5 times what it originally cost to build.

Our comment: There are multiple construction cost indices, such as the Corps of Engineers Civil Works Index for Roads and Bridges, covering Florida from 2003-2008 and none of them show anything higher than a 50 percent increase. In addition, the Figg Bridge Corporation has been recently estimating new facilities in Florida similar to the Tampa Expressway and their current projected costs are less than a 50 percent increase from what the Expressway actually cost. A 350 percent increase is nonsense; it is simply Parsons Brinckerhoff's attempt to justify the preposterously high projected cost of $2.6 billion that Parsons Brinckerhoff used for the MLA.

Anyone believing that Parson's Brinckerhoff's employees are reasonable and objective in informing the public about rail transit and the Managed Lane Alternative should hear the PODCAST of this Rick Hamada Show.

City brochure misleads

The city's widely distributed May 2008 Transit brochure is grossly misleading.. The city prints thousands of these transportation brochures and distributes them to a city wide mailing list in addition to placing it on their website www.honolulutransit.com. Following are our comments on the City's May transportation brochure (takes time to download).

Front page: Top reasons for rail:

> *EXCERPT: Good for MOBILITY -- One train can move 300 people which equals 6 buses or 300 cars! That means one rail line equals 6 lanes of cars.*

OUR RESPONSE: We dealt with this canard in earlier pages.

> *EXCERPT: Good for the ENVIRONMENT -- It's sustainable - rail can be powered by alternative energy like solar, wind or H-power. This means less air and water pollution and fewer green house gas emissions.*

This is a typical environmental appeal which has no substance in fact. As proof of that, there is no mention of these potential power sources in either the Draft EIS or its supporting technical documents. It is another case of spin being good enough for local consumption but not valid enough for submission to the FTA.

> *EXCERPT: Good for the ECONOMY -- The rail project will create 90,000 person years of employment or 11,000 direct and indirect jobs annually. And, building a reliable, dependable, efficient transportation system encourages healthy economic growth.*

OUR RESPONSE: 82 percent of the capital cost and 100 percent of the operating losses will be funded with local dollars. No mention is made of the downside of incurring higher taxes and higher City debt to justify a make-work project.

> *EXCERPT: Good for COMMUNITIES -- Rail encourages managed, orderly growth along the route. Planning where and how communities expand means we can keep the country country.*

OUR RESPONSE: It really means Transit Oriented Development, or heavy subsidies for developers, which has been the case in every other TOD; the subsidies are needed to entice people to live in so-called "vibrant" communities. No mention is made about the subsidies needed and their effect on local taxes.

EXCERPT: "[Houston] Metro says ridership on its light rail system has doubled in 20 months."

OUR RESPONSE – The American Public Transportation Association shows ridership on Houston's light rail was up 6.29 percent 2007 over 2006 and up just 3.08 percent for the 1st Quarter 2008 over the same quarter in 2007. Some doubling.

"The Dallas DART is up 9%. In Los Angeles - a city that loves its cars - rail ridership is up over 15%. In Seattle it's up 28%, in Charlotte 34%, and in Sacramento, rail ridership is up 43% in just a year. Across the country rail ridership is up 11.2%." City advertisement, "Paid for by City Taxpayers," in the Honolulu Advertiser, October 13, 2008. p. *A9.*

Since our local newspapers will print the City's official line verbatim without any research whatsoever, these untruths are repeated, for example, in the Advertiser main editorial of May 15, 2008.

Stop Rail Now's so-called "Lies and Misrepresentations"

This refers to the discussion on page 38 when the City accused Stop Rail Now and Honolulutraffic.com on statewide television of disseminating "lies and misrepresentations." When they finally presented the list to the City Council they called it "Inaccuracies."

The City's listing of our sister operation Stop Rail Now's supposed "lies and misrepresentations" are in larger type bold-faced and flush left. The City's response to our comments is shown underneath each of them. Our responses are shown underneath each of the items but are in small type and indented. We have listed here only those "lies and misrepresentations" attributed to Stop Rail Now.

This exchange took place before the Draft EIS had issued and so our comments related to that time and the Alternatives Analysis.

The following retains the City's original format:

Inaccuracies

Stop Rail Now Ad

Sunday, September 14, 2008 • Honolulu Advertiser· Page A25

1. "The recent GET Tax increase and federal funds will be insufficient to fund rail."

Through the financial plan in the Alternatives Analysis, adequate funding sources have been identified for the approved Kapolei to Honolulu route. The financial plan also includes almost $1 billion in contingencies. The financial plan was thoroughly reviewed by transportation experts with the Federal Transportation Administration (FTA) prior to its release.

There are five reasons for believing the funds will be insufficient:

First, the projected revenues from the GE tax hike will most probably fall short over the 15-year life of the tax given the current state of our economy. They will certainly be no more than that shown as the lower of the three growth scenarios, the "Trend Forecast," in the AA, table 5-4 & 5-7.

Second, the Alternatives Analysis (AA) financial plan, Table 5-8 and the Financial Feasibility Report (FFR) p. 4-4, calls for $1.2 billion in federal funds for the 20-mile option using the Trend Forecast for GE tax revenues.

The fed does not deal in inflation adjusted dollars only nominal dollars. There is no likelihood of us receiving $1.2 billion. In fact, the only FTA assurance that we have in writing is the minutes of an OMPO Policy Committee Meeting (see http://oahumpo.org/PC/pc2004/pc04mm0323.html) where Mr. Rogers, head of FTA's Region IX told the Committee that, "The FTA program office is looking to limit any New Starts funding to no more than $500 million per project." The minutes were accepted as true by the Committee members. This is the only written assurance from the FTA of us getting anything.

An email of 10-7-2008, from the FTA's Paul Griffo to us, reads as follows: "It is far too early to tell whether Honolulu's proposed rail project will receive New Starts funding. The project hasn't yet been accepted into the New Starts Program. "

Third, the plan does not call for operating losses to begin until 2019 (www.honolulutraffic.com/FFR.pdf , p. B-4.). However, according to city officials, plans call for operations to start in 2012. If operations do begin earlier it will increase the subsidies shown in the financial plan.

Fourth, the capital cost estimate for the 20-mile line is about one billion understated and the 28-mile by $2 billion. See www.honolulutraffic.com/costunderstate4.pdf for a discussion of the 1992 rail project, the Miami Metrorail and the San Juan Tren Urbano all adjusted for construction inflation and location.

Fifth, there will likely be change orders and other cost overruns. The average of the most recent FTA evaluation of New Starts Actual versus Projections and Costs showed average cost overruns of 40 percent.

That the "financial plan was thoroughly reviewed by transportation experts with the FTA prior to its release" is no assurance to anyone who has the slightest acquaintance with the FTA's record. The last two rail lines to open, Charlotte and San Juan, both went over 100 percent over projected costs.

2. "For the beginning 20-mile line we are unlikely to get all of the supposed $900 million in federal funds."

The Federal Transit Administration would not have allowed the City to continue with the project if it were not a reasonable estimate. In fact, in the Alternatives Analysis, it was assumed that federal funds would total $700 million. If we receive more, it will be a bonus.

Congressman James Oberstar, chair of the U.S. House Transportation and Infrastructure Committee has twice told the local media he strongly supports this project and mentioned $900 million as a reasonable figure.

2. Dealt with above.

3. "This amount together with the operating subsidy will take at least a 40 percent hike in property taxes."

This is a scare tactic. The subsidy for rail could be funded without any increase in taxes, property or otherwise.

Our statement related to the full Locally Preferred Alternative (LPA) and included operating losses. We estimate that the City's projected cost of the Full Corridor Alignment at $5.1 billion in 2006 dollars (AA, table 5-1) is $2 billion understated (see www.honolulutraffic.com/costunderstate4.pdf) and to that must be added the airport spur bringing the total to $7.5 billion. This will take more than a 40 percent hike in property taxes. See http://www.honolulutraffic.com/railfunding13.pdf which is a spreadsheet using an earlier estimate of $6.4 billion that resulted in a 40 percent hike in property taxes. If the City wishes to disagree, they should be specific.

4. "Automobiles are on average more energy efficient than modern rail lines."

According to the U.S. Department of Energy's 2007 Data Book, rail uses 36 percent less energy per passenger-mile than cars and trucks.

This attempt to confuse the average of rail lines with the *weighted* average of all rail lines, which includes New York, is quite deliberate. They know that New York City's energy efficient subways provide 57 percent of the nation's rail transit ridership and dominate the *weighted* average. We should be comparing ourselves to rail technologies similar to what we would be getting. In fact, whether you take just modern rail lines, or all rail lines including New York City, but use a straight average instead of a weighted average the automobile still comes out ahead with Btu's per passenger mile of 3,445 versus rail's 4,337. They know we are right on this. See this web page: http://www.stoprailnow.com/nwsubenergyuse.pdf.

5. "The city admits future traffic congestion will be worse with rail than it is today."

This is a cleverly crafted statement that knowingly uses only part of the information available. The Alternatives Analysis shows that a fixed guideway will reduce future traffic congestion between Kapolei and Honolulu by 11 percent.

This is pure spin. He is not denying that traffic congestion will be worse than today only that rail will reduce congestion by 11 percent from what it would be without rail.

6. "The city's own Parsons Brinckerhoff studies forecast that with rail, rush hour traffic will be 37% greater than it is today."

This is another cleverly crafted statement that uses only part of the information available. With the expected increases in population and employment in the future, rail transit promises the greatest reduction of this increased congestion.

More spin; he is still not denying that congestion will be worse with rail than it is today.

7. "Bus Rapid Transit and autos on High Occupancy Toll 'HOT LANES' is [sic] the most cost-effective way to reduce congestion and thus reduce pollution and energy use."

This statement has no basis in fact. The Alternatives Analysis compared the costs per users of Managed Lanes and the 20-mile fixed guideway and found that the Managed Lane is between $63 and $50 per user, while the fixed guideway is about $21 per user.

In addition, Managed Lanes would provide approximately 2 million hours of user benefits per year. The 20-mile fixed guideway would provide approximately 12

million hours of user benefits per year. Page 6-6 of the Alternatives Analysis states, "The Fixed Guideway alternative is approximately four times as effective at providing transit user benefits per annualized incremental dollar cost as the Managed Lane alternative."

Our statement refers to the detailed findings of the UHCS Study, which the city has made no attempt to refute. All they have done is personally attack Dr. Prevedouros who led the study. Failing any significant analysis of the UHCS Study by the City we will continue to quote it.

GETTING IT RIGHT

Misinformation about rail

Below are inaccurate statements about rail transit and HOT lanes taken from their source websites. The statements are grouped by category: traffic congestion, financial plan-costs, Managed Lanes-HOT lanes, ridership, travel times, Environmental Impact Statement, population, train speed, route, environment, downtown and Phileas buses.

TRAFFIC CONGESTION

"You may be even more outraged to find that it has never been our elected officials intention to improve traffic congestion." (stoprailnow.com)

One of the goals from the beginning has been to reduce traffic congestion and improve **corridor mobility, which includes reducing travel times and improving travel time reliability.**

Nowhere in the AA is there any sign of intent to reduce traffic congestion below current levels, only to "increase urban mobility" by which they mean by public transportation.

These excerpts from a letter sent by DTS Director Melvin Kaku to Cliff Slater on June 20, 2006, show that the City did not have congestion reduction as a main requirement:

"Projects with the purpose of providing roadway mobility for automobiles and commercial vehicles are outside of the authorization of Act 247; therefore, they will not be considered for the Honolulu High-Capacity Transit Corridor Project …

"While the transit system will reduce the number of drivers on congested roadways within the corridor, the corridor is expected to continue experiencing growth in travel demand. The transportation corridor between Kapolei and the University of Hawaii at Manoa will continue to experience substantial traffic congestion; however, congestion in the corridor is expected to decrease somewhat after the system opens, and grow at a reduced rate after that time because of automobile trips diverted to transit."

All the City hopes to do is to use rail to reduce congestion to levels below what they would be if we did nothing. The AA table 3-12 shows that present peak hour levels on the regular H-1 freeway lanes are 10,960 vehicles. If we build rail the city forecasts 17,414. That will mean a considerable increase in traffic congestion relative to today's levels. If we do nothing (No-Build Alternative), the demand will only increase to 18,049.

FINANCIAL PLAN-COSTS

"Even if Honolulu receives $900 million in federal aid, all of it will be spent in foreign countries or on the mainland. No federal funds will ever reach Oahu." (stoprailnow.com)

This statement is absurd. The largest cost elements of the project are the construction of the guideway, stations and maintenance facility and associated costs for utility relocations and street repaving. All of this work, of course, will be done on-site in Honolulu, as will most of the professional service activities.

> Stop Rail Now finds no record of us saying this. However, it may well be true it is just that we have not researched this issue.

The City cannot afford rail because it will cost $150 million a year to operate and maintain." (stoprailnow.com)

The estimated annual operating and maintenance costs for a fixed guideway are approximately $60 million. The cost of operating and maintaining a bus and rail system will be less than the cost of carrying the same number of riders on a bus only system.

> We can find no record of us having said this. However, it may well be true; we have yet to research it.

MANAGED LANES-HOT LANES

"Engineers for the Tampa elevated toll lanes say an elevated toll road can be built in Honolulu for less than $1 billion." (stoprailnow.com)

According to an e-mail from Linda Figg, whose firm designed the Tampa project, "We (Figg Engineering) have not done any "detailed engineering studies" of what estimates of probable construction costs would be for the elevated structure."

"We simply took those actual cost figures (from Tampa) and escalated the costs to today's time and included the escalations that might be anticipated for construction in Hawaii. The values that Cliff Slater is referencing look like the ball park figures that we determined from that back of the napkin review."

> What they precisely said was that they could not believe that it would cost as much as one billion dollars. Figg Bridge does other work in Hawaii and is familiar with geotechnical and labor conditions. They are also familiar with the proposed route of the HOT lanes proposal. Given that they are not going to perform "detailed engineering studies" for the city for free, their comments are valid and we think reasonable.

"In the 2006 AA, 10-mile Hot Lane performed only a little worse than 20 miles of rail line." (stoprailnow.com)

The fixed guideway is projected to reduce traffic congestion by about 11 percent in the study corridor. The Managed Lane-HOT lane option reduces future traffic congestion by about 4 percent. The fixed guideway is a more cost-effective solution per user benefit than Managed Lanes-HOT lanes (AA, table 6-1).

> We can find no record of this poorly written sentence coming from us.

HOT lanes pay for themselves with toll revenues and federal funds." (various)

Toll revenues would fund only about 20 to 25 percent of the cost of HOT lanes. No other funding sources have been identified.

> We see no reason why toll revenues cannot provide half of the $900 million capital costs and FHWA the other half. Even if FHWA did not fund it, the local taxpayer load $450 million is so incomparably small relative to rail transit that the city could have the state legislature amend Act 247 to allow its use for HOT lanes and still be able to terminate the tax in about four years.

POPULATION

"The rail project is totally out of line for the size of our community." (stoprailnow)

Honolulu is fifth densest among cities with populations of 500,000 or more. We are the only one without a rail system.

> More spin. No one compares "cities" but rather metro areas — contiguous urban areas with logical linkage for sharing urban transportation. Rather than San Francisco the federal government reviews the whole Bay Area. The USDOT's listing of metro areas has Honolulu as the 56th largest and most of the 55 that are larger than us have no rail.
>
> In addition, rail transit's cost per capita for Honolulu is at least seven times the next highest cost per capita among all metro areas and ten times the average.

TRAIN SPEED

"Train is not rapid." (stoprailnow.com)

Rail will achieve a top speed of 55 mph or greater between many stations.

> More spin. We, of course, only deal with average speeds from origin to destination. The city claims they will average 30 mph but that will be a reach and be, more likely, 25-28 mph. In any case, 30 mph is not rapid in comparison to uncongested highway speeds of 60 mph such as the HOT lanes would provide.

ROUTE

"Virtually everyone will have to use buses to get to rail stations. (stoprailnow.com)"

Rail stations will [be] accessible by automobile, bus, bicycle paths and walkways. In the transit corridor, 23 percent of the population and 38 percent of the employment will be within a 10-minute walk of a rail station.

> We do not find it credible that 23 percent of the corridor population will be within a ten minute walk from a station. We will ignore for a moment that a quarter mile is considered by the feds to be the maximum that people will walk to station or bus.

However, we have not made a detailed study of this and if the city has, we will be happy to review it with them and concede that they are right should that turn out to be the case.

"They are delaying the theoretical opening until 2019." (stoprailnow.com)

The projected opening is 2018.

The City's AA Financial Feasibility Report, Table B-4, shows that operating and maintenance costs for the 20-mile project begins in 2019, while the full length system begins in 2020 (Table B-5).

ENVIRONMENT

"The noise from steel on steel is an environmental blight." (stoprailnow.com)

Rail decibel levels are about the same sound as a city bus.

Yes buses are noisy. However, rail has a particularly annoying sound that at 79 decibels @ 50 feet coming by every 1½ minutes, in addition to buses and other ambient noise, makes the situation far worse.