

Donald F Padelford  
Seattle, WA

September 11, 2015

Bellevue Mayor Claudia Balducci  
King County Executive Dow Constantine  
via email

‘There are advantages of light rail even over dedicated BRT and one of those is capacity. A 4 car train can carry 800 passengers with one driver. It takes a lot of buses, even fully loaded, to match that.’ – King County Executive, Dow Constantine, on King5 Traffic Town Hall, 9-10-15 (paraphrase)

It is of course true that one light rail train can carry more passengers than one bus. A LRT train has 74 seats/car times (up to) 4 cars, or 296 seats. An articulated bus has 63 seats.  $296/63 = 4.7$  buses per train. This does not mean, however, that LRT has more capacity than BRT. On the contrary. Because buses can stop out of the traffic flow, while rail cannot, the former generally has greater capacity.

Capacity of a route or of a group of routes on the same facility is almost always determined by conditions at stops areas rather than line conditions. ... When stops are made off the main line or artery, capacity is determined by the safe separation between transit units. Thus, on exclusive busways or bus lanes on freeways [or HOT lanes], with off-line bus stops, headways of 5 s[seconds] can be achieved. Theoretically rail systems could operate at headways of perhaps 60 s[seconds] under similar conditions, but such situations are not found in practice.

Observed bus capacities:  
I-495, New York: 490 / hour;  
Lincoln Tunnel, New York: 735 / hour  
(1994 ITE Highway Capacity Manual, p. 193)

Admittedly in downtown Seattle (and perhaps Bellevue) bus through-put is pinched by the Transit Tunnel, but this has remedies (see attached letter to Doug MacDonald; I believe he conceded all the major points I made therein). The bottom line is this: whatever merits LRT may possess over BRT (and there are some), in terms of capacity the situation is exactly the opposite as that articulated by Executive Constantine. And given its absolutely gigantic capital cost advantage (see letter), BRT is the much smarter buy.

att macdonald031904  
cc PSRC Transportation Futures Taskforce

\\20150911LRTvsBRTcapacity

Donald F. Padelford  
Seattle, Washington

March 19, 2004

Douglas B. MacDonald  
Secretary of Transportation  
PO Box 47300  
Olympia, Washington 98504

Doug

Thank you for your letter of February 6, 2004. [1] Having mulled this over through the kids' winter break, my annual all-guy ski trip and some elective surgery, I continue to believe that the central issue here is the statement, made in your letter to Secretary Mineta, that the National Review Panel (NRP), which was convened to study this region's transit choices, concluded that "a new rail corridor was the only practicable choice for meeting the need to move more people in the I-5 corridor." There are two aspects to this statement. The first and less important is, did the NRP say this? The second and more important is, is it correct?

Concerning the first aspect, given that your letter was written specifically in support of Sound Transit's light rail project, and given that the relevant EIS, presumably informed by the NRP, specifically rejected light rail, I will stand by my previous statement that your claim was "mis-informed." [2] However the real issue is not what the NRP did or didn't say. The real issue is whether or not rail is the "only practicable choice for meeting the need to move more people in the I-5 corridor." It seems clear on its face that it is not. In fact it seems clear that BRT gives at least an order of magnitude more "mobility for the buck" than light rail. [3] And considering the bucks we are talking about ("a billion here, a billion there"), this is no small matter.

The central thrust of your 2/6 letter to me is that the bus capacity I derived for freeway HOT lanes is heavily constrained by the capacity of the Downtown Seattle Transit Tunnel (DSTT). I agree with this. But "the dog that didn't bark" in your letter is any disagreement with the capacity figures I derived for HOT lanes. I will apply the "silence equals consent" rule (which phrase I may have made up, given that none of my attorney friends seem to know the Latin equivalent), to indicate agreement that buses on, for example I-90 or I-405 HOT lanes, would have far more capacity than rail in those corridors. I do agree that bus capacity on prospective I-5 HOT lanes is constrained by the "pinch point" of downtown Seattle [4] (although, again, assuming HOT lane build-out, it is not similarly constrained in the region's other freeway corridors).

Taking your figure of a 2-way bus capacity in the DSTT of 125 buses per hour per direction (which number is likely to be low) [5] and 63 seats per articulated bus, gives 7,875 seats per direction per hour. In order to produce an apples to apples result, I will not take some fraction of bus seats vs some multiple of rail seats; that would be more nearly apples to cantaloupes. [6] On the rail side, while it is unlikely to the point of impossibility that Link could ever achieve 2 minute headways, [7] for sake of this discussion, I will take your number of 8,880 seats per hour per direction (74 seats per car x 4 cars per train x 30 trains per hour), an additional 925 seats per hour or about 12% more than the bus number above. [8] Now, given that in order to achieve the rail number, Link will have to be completed through to Northgate at a cost of something like \$7 Billion [9] the question becomes, it is possible for bus to achieve this capacity for something less than this figure? [10]

Well, duh. Ignoring for the moment the ways that exist to achieve greater operational efficiencies, [11] and ignoring all the relatively simple and/or inexpensive remedies that exist to increase through-put [12] – ignoring all that and just assuming that we built another bus tunnel once the current one is maxed out some decades hence, that in itself would double and could triple [13] the capacity you indicated for the current DSTT, which by your figures is currently 56% utilized. [14]

Adding this up produces something on the order of an eventual bus through-put in excess of 23,000 seats per hour per direction, [15] well above of any plausible transit demand, and of course many times the number theoretically achievable by Link. [16] The fact that this figure is only half the full bus capacity of a freeway HOT lane, [17] just means that these lanes are never likely to be fully utilized by buses, and will always have excess capacity for non-bus use. [18] Another way of putting this is that a HOT lane system will always have a robust transit capacity buffer, and thus will never need to become a bus-only lanes (busway) as envisioned by the National Review Panel. [19]

The cost of a new DSTT (“DSTT2”)? Well, the existing one, if memory serves me, cost about \$600MM. So double (or triple) that. As for a bus lane on the I-5 reversible lanes, a WSDOT number for that (Ravenna to Stewart) is \$59MM. [20] By any measure, it’s still a fraction of the Initial Segment cost, let alone Link from SeaTac to Northgate, not to mention a 150-mile build-out of the system.

The conclusion I take from the above is that while, as you state in your letter, the DSTT limits bus capacity in the I-5 corridor, given some simple investments, it doesn’t limit it to the point where bus through-put is less than rail. And given major investment (but far less than required for a comparable length of light rail) bus can give substantially more capacity. In sum: for less money, equal capacity / for equal money, more capacity. Either way: “more mobility for the buck.” If this was not clear at the time of the National Review Panel, it certainly is clear now. [21]

My only other point concerns the consent of the governed. You said,

Talking with Aubrey Davis about your letter, he points to the strong voter support for the transportation program containing light rail in the 1996 Sound Move vote, especially in the North King Subarea where the tax burden falls to pay for light rail. Even as the plan

has been shaped (and unceasingly attacked) [22] in intervening years, voters in the area continue to favor it as recently shown by their tally against Initiative 776. Transportation policy must be rooted in popular support as well as in technical analysis; Link Light Rail, despite the controversy it attracts, seems to stand with a strong measure of both.

There are a number of things to note here. The first is that we the voters were lied to before the 1996 vote. Sound Transit said that building the light rail system would be the equivalent of adding a 12 (sometimes 16) lane freeway. In fact not a few ST board members, perhaps in a kind of “blow back,” appear to believe that to this day. [23] Obviously if you added a 12 lane freeway, you would be taking a big whack out of congestion. [24] Unfortunately the Link system would have no noticeable congestion effect. [25] As for the 776 vote, before the vote we were repeatedly told by Sound Transit supporters that it had nothing to do with light rail. After the vote, it was a referendum on it. [26]

As a summary I could do worse than quoting Emory Bundy, in the title of an essay he wrote before the '96 vote: “If the [Sound Transit light rail] project [were] defensible, it could be defended by telling the truth.” Unfortunately it isn't, so it isn't. Yes, if we had tens of billions of dollars burning a hole in our collective pockets, I suppose it would be nice to have a rail system (although in that case it should be the kind of grade-separated system envisioned by the National Review Panel). But I haven't noticed that we are suffering from such an embarrassment of riches. Since I am the author of the phrase “WPPSS on Wheels,” I will end by saying that, in my view, this is pretty much what the Link light rail project amounts to. I realize that you have a different view.

*"We wish we had never started the whole thing. Fixed rail is not the answer to the transportation needs of our city. We should stop all this insanity that has gone on these past years."*

Richard Riordan, Mayor of Los Angeles and Chair of the Los Angeles County Metropolitan Transportation Authority, on public radio program, Which Way LA?, June, 1998.

Sincerely,

Donald F Padelford

As a postscript let me say something you already know, namely that I am fully on-board with the WSDOT in getting a HOT network established. We may have failed in this legislative session, but I am reassured by the words of Winton Churchill: “The Americans can always be counted on to do the right thing – after exhausting every other alternative.” I would say the other alternatives are just about exhausted.

Also, if you would like to get a few people together for lunch, I would suggest (if they will consent) Emory Bundy and Chuck Collins for my, in your word, “seconds.” I trust, however, this doesn’t entail, as the term might suggest, a duel.

Entries in this arial font are notes to myself that were added after letter was sent.

## Footnotes

1.

This was a response to my email to you of 10/4/03 with clarifying emails sent on 10/25/03 and 10/27/03; which email communication, in its turn was a response to your 7/3/03 letter to Secretary Mineta, written in support of the now-approved FFGA for Initial Segment of Sound Transit's Link light rail project.

2.

I think that this is adequately covered in previous communications, but to briefly recap: The 3/93 EIS rejected "light" rail, as well as busways, and supported "heavy" rail. I think it's a fair inference that what the EIS was rejecting in "light" rail is lack of grade-separation. Thus the EIS (informed by the NRP) rejected non-grade-separated rail transit. It seems likely, and is in conformance to my memory of the then-discussion, that over-head-feed (ie "light") rail that is grade-separated in its core would have passed muster. However the EIS examined at least two iterations of "real" (non-grade-separated) light rail, such as Sound Transit is now beginning to construct, and explicitly rejected that modality. Bus rapid transit running on HOT lanes (BRT on HOT) was not on the radar screen at that time and was thus not considered. It is also a fact that neither the '93 EIS nor any other EIS or similar analysis compared specifically Light rail to Bus Rapid Transit. Repeat: LRT has never been directly compared to BRT. Never happened.

As communicated earlier I believe that the reason we have "real" (non grade-separated) light rail running down MLK is that the Seattle City Council, during the mayoralty of Norm Rice, "played the race card" to divert the system, which was to run elevated (like Vancouver's Skytrain) down the Duwamish, to the Rainier Valley, where, due to some suspect budget constraints, it became an at-grade system. The irony of this, of course, is that, thanks to the race card, the predominantly minority residents of the valley get a dangerous at-grade system while the white, middle-class residents of the north end get tunnels. Besides being dangerous, such an at-grade system is also slow, low-capacity, and puts a monkey wrench in way of east-west travel. In a pattern that has been repeated numerous times, the analysis that was produced to support the MLK route was in essence fraudulent.

<http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=rail16m&date=20010716&query=rainier>

If Link had gone where and how objective analysis at the time said it should go (elevated down the Duwamish) it is likely that the opposition that has formed around this project would never have coalesced, and that the monorail movement, which has as its mantra that monorails "don't get stuck in traffic," would never have been born. Thus the reason that Link has, in your words, been "unceasingly attacked" is a direct result of disingenuousness in the process that gave it birth.

3.

Of course there are lot of unknowns, and any cost comparisons are somewhat "back of the envelope." For one thing Sound Transit doesn't know (or says it doesn't) how much the extension to SeaTac and Northgate will cost (which doesn't stop Ron Sims from being "confident" that it can be built within existing taxing recourses -- now wait a minute, if your don't know how much it will cost, how can you .... oh, never mind). None the less our best guess (via the good offices of Jim MacIsaac) for the SeaTac to Northgate line is in the \$7B range. If a full system is 150 miles, and if the rest costs about the same per mile, this would produce a system

cost of about \$50B. As for BRT on HOT, the main thing that needs to be done is to finish the HOV lane system, which according to the WSDOT would cost on the order of \$1.65B for the “core” system (not including the cost of ramps and connectors to make it seamless), and then convert the HOV lanes to HOT, which can be financed from HOT revenues. While special ramps and connectors are not needed right away, a WSDOT number for that is approximately \$290MM. Thus finishing the core HOV system and building the HOV connections should cost on the order of \$1.9B, about 1/26<sup>th</sup> of the “back of the envelope” cost for Link above. Given HOT conversion (to keep the lanes in free-flow in perpetuity), for this you would be getting a BRT system running 150 miles and covering the entire metropolitan Puget Sound region at 60 mph 24/7. Even if the relative cost figures are off by a factor of 100%, this still is an order of magnitude difference between the two.

There two, off-setting, errors above: Link SeaTac to Northgate is about 24 miles, not the 21 miles used in the letter. However, this is off-set by updated cost data: the SeaTac to Northgate cost, according to new (to me) information from Maclsaac (email from JM 4/24/04) is \$7.9B vs the reported \$7B

$\$7.9B / 24 \text{ miles} = \$329MM / \text{mile}; \$329 \times 150 \text{ miles} = \$49.5B$ , essentially equal to the \$50B figure mentioned in the letter.

Also the above figures do not include the cost of a southbound bus lane on I-5 at about \$59 MM. Thus the total cost for a BRT roadbed would be approximately  $\$1,650 + 290 + 59 = \$1,999MM$   
 $1,999 / 49,500 = 1/25$ , not 1/26 Whatever

4.

While not all I-5 buses stop in downtown Seattle (eg airporters from Skagit do not), almost all do; it seems like a reasonable simplifying assumption to assume they all do.

5.

Previous Metro analyses prior to 8/01 (see footnote #8) showed a capacity of 150 buses per hour per direction. Our understanding of the 125 figure is that Metro was instructed to assume no operational changes or new efficiencies (I believe there is documentation to this point). Having said this, my knowledge of the nuts and bolts of bus operations is very limited. If you want to get the real scoop on achievable bus efficiencies you need to talk to someone who is both knowledgeable and is an honest advocate for that technology. In this region you couldn't do better than Chuck Collins, the former head of Metro.

6.

Either you have to compare theoretical capacity to theoretical capacity, or achievable capacity to achievable capacity. It just isn't kosher to compare the theoretical capacity of rail to the achievable capacity of bus. However, I'm afraid that this is exactly what your letter does. In my case I am using a form or theoretical capacity, seated capacity in each case, which is apples to apples. I leave achievable capacities in each case (oranges to oranges) to those with more expertise than myself.

However, the concept that if you put a bus on rails, passenger capacity goes from 80% of the number of seats to 185% is sort of ridiculous.

<http://seattlepi.nwsourc.com/horsev/viewbytopic.asp?topic=Local%20news&id=494>

If, as you aver, this is partially a function of the “shorter trips” for light rail, that just shows that what Sound Transit is building is not a transit “spine” but a gold-plated local bus line substitute (instead of a bus line down MLK, we in effect get an extension of the Waterfront Trolley down that arterial).

7.

BART is of course a completely grade-separated system. It is my understanding that the best it has been able to achieve, after decades and billions and billions of dollars, is slightly better than 3 minute headways. In order to get 2 minute headways for Link, the concept that I have read is that a train would come from the south, then one from the east on I-90, then one from the south, etc. The south and east trains would be on 4 minute headways, and combining them would produce 2 minute headways going north from downtown. But can trains running at-grade through the Rainier Valley really reliably maintain 4 minute headways, and merge, with the precision of a Swiss watch, with trains from the east? Of course not. And what would a train every 4 minutes do to cross traffic in the valley? Devastate it. (From the 1993 EIS, page 2-50: Non-grade-separated “[t]rain frequency is also limited, since there must be time to clear intersections between trains. Conventional transit practice and highway standards suggest that when train frequencies are under 6 minutes, cross traffic on arterials will be affected to the extent that grade separation is necessary.”) So the concept that Link will run on 2 minute headways north of downtown under such a scenario is not credible (if the grade-separated BART can’t do it ...). If Link were to eventually achieve 6 minute headways with both feeder lines (south and east), that could produce 3 minute headways north of downtown, which, as I understand it, is the figure that Sound Transit originally posited before it figured out that 6 car trains won’t fit into the DSTT stations (see below).

The 1996 Sound Move document envisioned 6 car trains. When it was pointed out that 60 foot rail cars haven’t been manufactured since WWII, the six 60’ railcars morphed into four 90’ cars (the stations are 380’ long). But interestingly the 60’ and 90’ foot cars each were to carry about the same number of people (125 vs 137), so while the length of the cars increased 50%, the number of passengers increased a mere 10%. Didn’t someone bother to measure the stations before asking the taxpayers for billions? Or were they perhaps contemplating double-decker rail cars in Sound Move? Anyway, this little fiasco required Sound Transit to decrease the headways in order to maintain (theoretical) capacity. This was accomplished as follows: 6 cars trains running every 3 minutes produces 120 cars per hour (20trains/hr x 6cars/train = 120cars/hr) This was changed to 30trains/hr x 4cars/train = 120cars/hr. The only problem is that there never was any realistic prospect of running trains every 2 minutes.

8.

My understanding is that the 8/21/01 “Evaluation of Joint Operations in the DSTT,” referenced in your letter, is, to put it charitably, a flawed document. Metro at this point has become essentially a captive agency of Sound Transit. Therefore work product that comes from Metro should be examined with a jaundiced eye. People working there know the score. Transportation professionals in other agencies who showed insufficiently-attuned political instincts were shown the door.

With apologies to Shakespeare, the dialogue between Sound Transit and Metro may have gone something like the following:

Sound Transit: Do you see yonder cloud that's almost in shape of a camel?

Metro: By the mass, and 'tis like a camel, indeed.

ST: Methinks it is like a weasel.

M: It is backed like a weasel.

ST: Or like a whale?

M: Very like a whale.

Etc.

9.

See footnote # 3

10.

Alternately, if you threw \$7 Billion at a bus system, could you do more?

11.

As stated earlier, I am certainly no expert in this realm, but I am given to understand that if one were to use the tunnel only for outbound and “inter-lined” runs (ie runs that start north of the downtown and, sometimes with a change of number, continue on south of downtown, or visa versa, as opposed to runs that terminate in downtown), that efficiency would be improved. I am further given to understand that currently even dead-headed buses use the DSTT. I believe that I am only scratching the surface here.

12.

These would include, from mundane to perhaps fanciful:

- Using 3<sup>rd</sup> Avenue as a bus mall, either during rush hours of full-time

- Platooning buses

- Using double-articulated buses

- Creating bus-trains in controlled-access situations like the DSTT by electronically connecting buses as has recently been demonstrated in Japan.

- Intercepting some buses north or south of downtown and transferring passengers to a shuttle (monorail, personal rapid transit, moving sidewalks, gondolas, bike/Segway lanes, etc)

- Narrowing lanes (with the implementation of self-guidance technology in the tunnel) and narrowing sidewalks to produce two passing lanes in the stations, thus allowing “skip stops,” with the consequent doubling of through-put from the maximum now envisioned for the DSTT.

- Punching out station walls into adjoining properties to get an additional passing lane as above.

- Etc.

13.

Even if we had two passing lanes in the stations as opposed to the existing one passing lane, it would be possible to implement skip stops, thus doubling the capacity of the new tunnel when and if needed. Thus, using your figures, the through-put could be 125 (the current DSTT) + 2 x 125 (a new DSTT) = 375 buses per hour per direction.

(Using the normally accepted figure of 150 buses per direction per hour for the DSTT, the eventual through-put could be 450 pdph.)

14.

Thus from today’s through-put, capacity could be increased by a factor of  $375 / (125 \times 56\%) = 5.4$  or 540%. That should do it!

15.

375 buses per hour per direction x 63 seats per bus = 23,625 seated passengers per hour per direction.

According an email from Jerry Schneider 2/25/04 Bogota and San Paulo BRT systems carry 30,000 pphpd.

16.

Calculated above at 8,800 seats per hour per direction, assuming (unrealistic) 2 minute headways. Therefore, I don't agree with your statement that "We do know at least one virtual certainty. Within a short horizon – say twenty years of so into the future – such a [bus] system would not the capacity to serve the needs in our most congested, highest demand corridors."

Bus/rail seats =  $23,625/8,800 = 2.7$  times.

Assuming more realistic through-put numbers for bus and rail of 450 (two tunnels) and 20 (3 minute headways) respectively, the numbers become:

Rail: 20 trains per hour x 4 cars per train x 74 seats per car = 5,920 seats per hour

Bus: 450 buses per hour x 63 seats per bus = 28,350

Bus / Rail seats =  $28,350 / 5,920 = 4.8$  times

17.

HOT lane:

3600 seconds per hour x 1 bus per 5 seconds x 63 seats per bus = 45,360

Two tunnels:

375 buses per hours x 63 seats per bus = 23,625

18.

Vanpools, qualifying carpools, emergency vehicles, paying non-carpools.

19.

As communicated in my 10/4/03 email, it appears to me that the NRP envisioned a busway with "on-line" loading/unloading, thus severely constraining its through-put.

20.

As I envision it, a HOT lane build-out would eventually include the now-reversible lanes on I-5 (and I-90). One concept would have a 2x2 HOT format (ie 2 HOT lanes in each direction) south of SR520 and a 1x1 HOT format north of 520. In this concept there would be a HOT to HOT interchange at the intersection of I-5 and SR520. Obviously something of this magnitude would cost in the hundreds of millions of dollars. The above-referenced Ravenna to Stewart contra-flow bus lane on I-5 could be thought of as an interim solution. I would add that this is one of the benefits of a BRT approach, it allows interim solutions. You don't have to build out the whole system at once since buses can, for example use HOV lanes before they become HOT lanes (or use GP lanes). Thus we could have a pretty good 150 mile system quickly and a superb system over time. In contrast light rail in this region obviously cannot run anywhere new right of way isn't built. The existence of an existing right of way is why the San Diego light rail system was built at such a bargain price. Likewise with St. Louis and commuter rail in Chicago. If we had kept the Interurban ROW, this might have been true of this region as well, but of course, we didn't.

One, somewhat esoteric point about HOT lanes, is prompted by footnote #1 in your letter to me. You say that HOT lane "would certainly limit the number of cars that the lane would simultaneously accommodate." This subject has been discussed extensively within the HOT lane community. I think it's a fair characterization to say that we have concluded the opposite – that

by avoiding the “backward bending” portion of the flow vs density curve, pricing can maximize through-put. It works much the same way as ramp metering, which increases flow on the freeways, only more so. -- Also I don’t see why HOT lanes would need to annex any GP lanes as you state, other than the reversible lanes. And by simultaneously changing, for example, the Mercer Street entrance to the right-most lane, it may be that no GP flow need be taken away. In any event it is always possible to add GP capacity unless a “pincer movement” against adding or subtracting I-5 capacity is undertaken (see footnote #2 in my 10/4/03 email to you).

Also, while it is certainly desirable to have some kind of separation of HOT (or for that matter HOV) and general purpose lanes a la the SR167 prototype, it isn’t absolutely necessary. After all our HOV lanes operate without them today.

21.

Note that it’s not even clear that 3 minute headways (20 trains per hour) are achievable. But if it is, then the rail seated capacity number is 74 seats per car x 4 cars per train x 20 trains per hour = 5,920 seats per hour, considerably less than bus. So if rail headways of 3 minutes are the best achievable, then bus has more seated capacity today without any further investment, than rail would have after the expenditure of funds necessary to get from SeaTac to Northgate (approximately \$7B, see footnote #3).

22.

See footnote #2

23.

I got into somewhat lengthy discussion with Greg Nickels on this very subject before he was elected mayor. He was convinced at the time that it was the gospel truth. (As chair of the finance committee, he also assured me that he bird-dogged the cost figures very closely and that they were absolutely solid – this was before the initial billion dollar cost-overrun – haven’t heard from him on this recently.)

the '96 election:

- What was promised by ST was what polls said people would go for, not what analysis said was possible.

- Gerrymandering (Dan Norton)

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24.

In the recent SEIS for the north section of Link this egregious piece of mis-information has again made an appearance. Obviously the people who put together that document know better. At long last, have they no shame?

25.

From the 1999 Central Link FEIS, page 3-5: “Therefore, based upon traffic forecasts, the light rail system will not result in a significant difference in regional traffic volumes ... Peak hour volumes for the No-build and light rail alternatives are also expected to be similar [almost identical] across all screenlines.” In other words, it won’t do diddley for traffic congestion.

The cute circumlocution that Link would provide congestion relief “for those who use it” isn’t even true. Trundling down MLK on light rail would be no faster “for those who use it” than doing so in a bus or car.

26.

<http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=rams04&date=20021204&query=ramsey+776> ]

<http://archives.seattletimes.nwsourc.com/cgi-bin/tehis.cgi/web/vortex/display?slug=rams04&date=20021204&query=ramsey+776>

Also Rob McKenna, the Seattle Times editorial department, and many others opposed 776 and currently oppose Link. Obviously for them 776 was not a referendum on Link.

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