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OnTrack Response No. 3 (also posted at www.monorailontrack.org)

On June 16, 2005, the Seattle Monorail Project sent out an “update” (in *italics*) regarding Green Line operations and maintenance costs.¹ OnTrack’s Response (in **bold**) highlights the fact that ridership could be only half what was projected in 2002, that advertising revenue will be only a small portion of operating expenses, and that the SMP’s self-imposed goal of Green Line self-sufficiency by 2020 is impossible to attain.

In 2002, monorail proponents promised that the Green Line would be a well-planned and disciplined project that would not be subject to the vast overruns typical of major transportation projects. The ETC plan stated: “...the monorail plan has been scrutinized by technical experts, including independent industry evaluators who reviewed the ETC’s proposed capital budget; private cost estimators who helped refine the ETC’s capital and O&M budget estimates; economists who conducted benefit-cost analysis on the monorail proposal; and independent project analysts who evaluated the financing plan, budget, and schedule in light of the risks the project could face. This technical review provides a greater level of certainty about the feasibility of the monorail proposal” (page 51).

Virtually every projection underlying the Green Line has proven to be wrong. Monorail experts significantly underestimated the capital and operating budgets and significantly overestimated the size and potential growth of the tax revenue to fund the Green Line. Due to increased construction costs, continued revenue shortfalls, ballooning finance costs, and the need for an on-going operating subsidy, the Green Line will cost Seattle taxpayers vastly more than was promised in 2002. The City Council has a responsibility to satisfy itself that the Green Line can be completed and operated as promised before granting use of the City’s rights-of-way.

Green Line Operations and Maintenance Costs

The Monorail staff has negotiated a five-year fixed price Operations and Maintenance contract (OMC) with the option to extend the contract for two five-year periods. The fixed price is approximately \$27 million per year in 2005 dollars.

The price for the *first* five-year O&M contract is fixed, but we believe the *second* and *third* contacts will be subject to negotiations and their price will escalate to account for inflation and other factors affecting the cost of operations and

¹ The update can be found at <http://www.elevated.org/updates/update.asp?UpdateID=160>.

maintenance. As the price of the O&M contract increases, the gap between operating revenues and operating costs will also be greater.

The OMC covers the basic costs to operate and maintain the Green Line, including the cost of staffing (operations center, maintenance and cleaning crews, etc.), plus vandalism repair, and graffiti removal.

The description of costs appears to be very selective. While SMP mentions several costs the contract will cover, it is important to account for costs which are not mentioned. The overarching issue is *the obligations not assumed by the contractor*. An example is security (which could potentially amount to 4% of the operating budget), a responsibility imposed on the contractor by the RFP that appears to have been shifted to the SMP. Has responsibility for security (as distinguished from policing tickets) shifted to the SMP? All responsibilities and costs shifted from the contractor to SMP must be identified.

The SMP will be responsible for collecting money from the Green Line ticket vending machines, any required policing, and reimbursing Cascadia for needed insurance, bonding, and the cost of the ticket stock for Green Line ride tickets purchased through the ticket vending machines at the stations. SMP is carrying reserves of approximately \$4 million per year in 2005 dollars for these reimbursements. Therefore the total costs to operate and maintain the Green Line is approximately \$31 million per year.

Using the term “reserves” to describe the projected \$4 million the SMP will spend annually to cover its operating responsibilities is inaccurate. These are costs and should be treated as such in the budget.

The projected \$4 million SMP operating costs (over and above the amount to be paid to the contractor) are suspiciously low, especially if non-enumerated costs are to be assumed by the SMP, including operating overhead (SMP employees performing operating functions), security, and etc.

When transit agencies contract for services, it is common practice for the contractor to pay for insurance. Why should the insurance for a system that is designed, built, and operated by the contractor be paid for by the SMP? Most probably, the contractor negotiated for SMP to cover this expense because insurance for monorail operations is a rare commodity and the cost is high.

What bonds are included in SMP’s responsibilities? It is highly unusual for an agency to pay for the performance bonds of its contractor. If the SMP pays for performance bonds, does that not mean that effectively there are no performance bonds because the cost of assuring contractor performance is entirely borne by SMP?

2020 Breakeven Goal

In 2002, the ETC established a goal of operating the Green Line without the need for ongoing subsidies and the SMP Board reaffirmed that goal. Although subsidies will be required in the early years of operations, the voters approved that after 2020, the SMP would not use revenues from the 1.4% Motor Vehicle Excise Tax (MVET) to subsidize operations.

The “goal” of self-sufficiency is impossible (no transit system in the nation comes close to breaking even). Monorail planners created this self-imposed hurdle based on the unrealistic assumption that fare revenues, advertising income, and “entrepreneurial” activities would cover operating costs. It is now apparent that none of these sources of revenue will perform as assumed and the Green Line will require an operating subsidy. Given this reality, and the SMP’s unwillingness to reassess this impossible goal and plan for inevitable future operating subsidies, the City Council must now plan for this eventuality before granting City rights-of-way the SMP.

Taken together, SMP has a variety of potential income sources including fares from commuters, people going to events, tourists, plus revenue from the sale of Monorail-based merchandise, and advertising space on the trains (train wraps), in the trains, and in the stations. Based on current ridership projections, SMP estimates that revenues from all sources will equal all expenses after 2020. These other sources of revenues give SMP a broad variety of ways to achieve the break-even goal.

The SMP has only two sources for operating revenues: fares and advertising (sale of merchandise will be an insignificant portion of the budget). These sources of income are the same set of sources available to all U.S. transit agencies and they are insufficient for all of those systems. King County Metro, for example, earns only 25% to 30% of its operating budget through fares and advertising.

The original 2002 ridership study, which projected 69,000 daily trips² and 20 million annual trips on the Green Line, is now out of date. Because of the flaws in this study, its conclusions have been questioned by various experts. For example, in July 2004, the Puget Sound Regional Council projected that commuter ridership on the Green Line would be 26% lower than projected.

Since the inflated projections were made in 2002, the SMP has made a number of changes to the Green Line, all of which will negatively impact ridership:

- 1. The SMP has announced it will purchase roughly half the anticipated number of trains, which will increase wait times for trains from four to eight minutes at peak times, thereby cutting service in half.**

² “Trips” refers to one-way trips on the Green Line. A commuter rider from Ballard, for example, would take two trips per day, one into downtown to work and one home to Ballard.

2. **Only 16 of the 19 promised stations are included in the contract. Two stations—35th and Avalon and Elliott and Mercer—are deferred indefinitely and it is unclear if the SMP will be able to acquire the site for the 2nd and Madison station, which was to serve the downtown core and the ferries.**
3. **Platform lengths have been reduced from 130 feet (which could accommodate three-car train sets) to 90 feet (which allow for only two-car train sets), effectively cutting system capacity by one-third.**
4. **Enclosed stations have been replaced by exposed, bare bones open-air stations. Given the increased wait times between trains, it is probable that this change will further decrease ridership.**
5. **The addition of sections of single-beam guideway—where one train will have to pull over to let another pass—will slow travel times and increase waits.**
6. **Escalators have been removed, requiring passengers to use elevators or stairs. Elevators, legally required to service people with disabilities, and relied upon by people with bikes, parents with strollers, and others, must now be shared by all uses. Escalators are the preferred way to move large numbers of people quickly because elevators provide slower service for most commuters.**

Taken together, these changes could reduce ridership 40% or more from the original projections.

Changes to the Green Line, coupled with the fact that the original projections were inflated, result in a monorail that could easily attract only half the number of riders projected in 2002, a reduction from 20 million to only 10 million annual trips. At that level of ridership, the SMP would have to charge \$3.10 per trip to break even on operations. This fare does not account for discounts offered to seniors and children or for transfers from Metro buses.

The SMP's claim that branded merchandise and advertising will add significantly to operating revenues is unsubstantiated by the experience of other transit agencies. At the November 18, 2004 Financial Committee meeting, SMP staff estimated that the Green Line would earn \$10 to \$18 million or roughly 30% to 50% of its annual operating budget from advertising. This number is vastly out of step with other transit agencies. For example, advertising revenues cover 3.5% of Sound Transit's operating expenses, advertising covers 2.8% of BART's operating expenses in San Francisco, 2.3% of TriMet's (including MAX) operating expenses in Portland, and only 1.6% of Metro's operating expenses in King County.

The SMP's advertising revenue projections were made before the details of the proposed contract were known. Recent changes to the Green Line will further reduce SMP's capacity to earn advertising revenue:

1. **A 40% to 50% decrease in the number of passengers reduces potential advertising revenue by a corresponding amount because ad prices are based on the number of people who see the advertisements.**

2. Similarly, the 50% reduction in the number of trains purchased translates to a 50% reduction in revenue from advertising on trains.
3. Open-air stations will have no space to display ads and, therefore, limited advertising opportunities.

The SMP had planned to earn additional revenues through specially designed tourist and “celebration” trains. These elements have been eliminated.

SMP will use revenue from the 1.4% MVET to subsidize its start-up operations through 2020. These start-up operating subsidies are estimated to be approximately \$50 million in 2005 dollars or \$65 million in year of expenditure dollars.

The 2002 ETC Plan called for a \$25 million operating subsidy. The \$50 million subsidy now projected is a 100% increase over ETC estimates and necessarily follows from a correction of the original vastly inflated fare and advertising revenue projections and further demonstrates the impossibility of attaining the 2020 self-sufficiency goal. The increase highlights the need for SMP to make realistic plans to operate the system with a subsidy after 2020.

Further, given the subsidy required by other transit agencies, \$50 million will likely not be sufficient to meet operating revenue shortfalls. If the \$50 million is averaged over 10 years, then the annual subsidy is \$5 million or 16% of the \$31 million operating costs. If operating costs rise after five years with contract renewal negotiations, then the subsidy will be an even smaller percentage of operating costs. By way of comparison, in 2003, King County Metro’s operating expenses were subsidized by 76% and San Francisco’s BART and Portland’s Tri-Met (including MAX) both received a 50% subsidy for operating expenses. The 16% or less budgeted to subsidize the Green Line appears to be inadequate, especially for a start-up agency with only 14 miles of guideway and half the proposed number of trains.

The cost to build the Green Line and to fund the start-up operating subsidies can all be financed within the SMP’s voter approved funding limits.

What little detail is available about the SMP’s financial plan indicates that this assertion is not true. The SMP apparently plans to borrow up to the funding limit (\$1.5 billion in 2002 dollars), pay down a portion of the principal (while deferring interest payments), and then issue additional bonds up to the borrowing cap, essentially making the borrowing “cap” a revolving line of credit. (see OnTrack Response No. 1)

As the SMP issues its periodic updates in coming months, OnTrack will continue to respond to clarify issues and highlight areas of the project needing public attention and scrutiny.