# Washington State

# Amtrak *Cascades* Operating Costs Technical Report

VOLUME 4


Washington State Department of Transportation

February 2006

**Prepared by the Freight Systems Division**
**Washington State Department of Transportation**

February 2006

For more information, contact:

- Call the WSDOT State Rail Office at (360) 705-7900 or 1-800-822-2015;
- Write to the WSDOT State Rail Office at P.O. Box 47407
  Olympia, WA 98504-7407;
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# Amtrak *Cascades* Operating Costs Technical Report

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**Prepared for the**

## Washington State Department of Transportation

**By**

## Transit Safety Management, Inc.

**in association with**

**The Resource Group Consultants, Inc.**
**HDR Engineering, Inc.**

**February 2006**

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# Chapter One: Introduction

Washington State is incrementally upgrading Amtrak *Cascades* passenger rail service along the Pacific Northwest Rail Corridor (PNWRC) in western Washington. The state's vision for passenger rail in the Pacific Northwest extends over a twenty year horizon; implemented through a step-by-step (incremental) approach. Service is being increased over time based on legislative funding and market demand.

The operating costs developed for the *1997 Pacific Northwest Rail Corridor Operating Plan* utilized the Amtrak cost allocation system as a basis for projection of the expected costs of the Amtrak *Cascades* service. For the past few years, the Amtrak *Cascades* service has been operating an abbreviated form of the fully developed service of the program. The cost and revenue information is sufficiently consistent to provide a basis for projection of operating costs.

## What is the purpose of this technical report?

The purpose of this technical report is to provide revised, detailed operating costs for the Amtrak *Cascades* intercity passenger rail service along the PNWRC based on the best currently available information. This document presents the background methodology and analysis used to calculate operating costs for the *Washington State Long Range Plan for Amtrak Cascades*.[1] To ensure accuracy, all of the results have been constructed from current data. Earlier methodology and projections have not been used, revised, or updated. The information contained in this report is geared towards the transportation professional and not the general public. The results of the analyses contained in this report are summarized and presented in the *Washington State's Long-Range Plan for Amtrak Cascades.*

Operating costs have been developed for five scenarios shown in **Exhibit 1-1**, on the following page.[2] Under the future operating plans, the current operation of eight one-way train trips between Seattle, WA and Portland, OR and two one-way train trips between Seattle, WA and Vancouver, BC would increase in 2008 to sixteen and six one-way train trips, respectively. In addition, services in 2023 would include twenty-six one-way train trips

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[1]*The revenue and expense data is associated with Washington State sponsored Amtrak Cascades trains only. Revenue and expenses for national trains such as the Coast Starlight and Empire Builder and for the portion of the Amtrak Cascades sponsored by Amtrak are not calculated for this exercise.*

[2]*Specific information can be found in Washington State Long Range Plan for Amtrak Cascades Technical Paper: Operating and Capital Plan.*

**Exhibit 1-1**
**Amtrak *Cascades* Operating Plan Scenarios: Daily One-Way Train Trips**

| Scenarios | Seattle-Portland, OR | Seattle-Vancouver, BC |
|---|---|---|
| 2003 | 8 | 2 |
| 2008 | 16 | 6 |
| 2023 | 26 | 8 |
| 2023 Revision A | 28 | 10 |
| 2023 Revision A Scott Road | 28 | 10 |

between Seattle and Portland, OR and eight one-way train trips between Seattle and Vancouver, BC. Two new alternative scenarios were analyzed and are discussed in this paper.

The first scenario (2023 Revision A) involves the increase of two one-way train trips in both the Portland, OR to Seattle, WA and the Seattle, WA to Vancouver, BC segments. This scenario was added because evaluation of the equipment plan and ridership results for the 2023 timetable indicated that additional trains could be run using less equipment than in the 2023 scenario and that ridership would increase. The second scenario (2023 Revision A Scott Road) is the 2023 Revision A scenario with the current Vancouver, BC station relocated to a new facility at Scott Road (Greater Vancouver Terminal in Surrey, a municipality/suburb southeast of Vancouver). This scenario was added because the results of other planning work indicated that the demographics of the Greater Vancouver area are such that ridership might increase without increased cost by locating the terminal in Surrey rather than Pacific Central Station in Vancouver. For more information regarding this scenario, see **Appendix A**.

Operating plans were constructed based on the planned and programmed infrastructure improvements identified in the *Amtrak Cascades Plan for Washington State: 2003-2023 Technical Paper: Operating and Capital Plan*. As each incremental set of infrastructure projects (generally, increase in track capacity) is completed, more train service is implemented.

The operating costs, which are estimated in 2002 dollars, are based on existing line item expenses in the revenue and expense report. Expenses for the 2008 and 2023 scenarios are adjusted by a factor representing the anticipated changes in the per train costs of each line item.

Each expense item was considered individually for the possible effects of the changes from current operation found in the timetables and crew/equipment plans of the 2008 and 2023 scenarios. In addition, the potential revenues collected for non-ticket purchases (e.g. food and beverages, leases, souvenir sales) were estimated based on current per passenger purchase rates by train market segment and applied to future trains.

## What is the history of predicting operating costs along the PNWRC?

For the 1997 *Pacific Northwest Rail Corridor Operating Plan,* Amtrak's cost allocation system for the Pacific Northwest passenger service was used to establish operating costs for the service in place (in 1997) and planned service expansion. The first task was to identify the basic operating cost elements relevant for predicting operating costs for the PNWRC service. Second was to modify these cost inputs to reflect the exclusive use of Talgo tilt-train technology or other equipment with similar characteristics. At the time, the Amtrak *Cascades* were using a mix of Talgo and conventional equipment. Moreover, the drivers for the variable cost item (e.g., annual train miles, train hours per day, train sets required) were defined.

During the intervening period, the Talgo trains have become the exclusive equipment type in the Amtrak *Cascades* service; conventional equipment was withdrawn from the service in 1999. As a result, there are over three years worth of exclusive Talgo operating cost information available for study and analysis. These Talgo data serve as the cost basis for a new calculation of operating costs. As in the previous cost study, we identify the specific drivers of each variable cost items, and use these drivers to estimate future costs. The main difference between the new estimate and the 1997 estimate is that the new estimate relies on the recent history of the Talgo service, rather than on costs of mixed Talgo conventional Amtrak equipment modified to simulate anticipated trainset costs.

## Were target years used for this analysis?

The Amtrak *Cascades* program was designed to be implemented within a twenty year timeframe. Although analysis and research data are identified by specific years of operation, the purpose of an incremental program is to be able to implement service as funding becomes available. As such, specific years of implementation may change, but the specific projects needed to achieve each service level will not.

The travel times and train frequencies presented in this discussion focus on years 2008 and 2023. Year 2023 represents the end of WSDOT's twenty year build-out plan. Year 2008 was chosen as an intermediate year to represent a "mid-point" in service and infrastructure development. WSDOT selected year 2008 as the interim year based on the assumption that full funding for all projects targeted for implementation between 2003 and 2008 would be available.

Since the initial decision was made to use 2008 as the mid point for this analysis, WSDOT has recognized that funding levels necessary to meet the program's goals, may not be available. Therefore, the implementation years (and associated service levels) identified throughout this document represent a sequence rather than specific points in time. Implementation of projects (and therefore achievement of service levels) could take longer than anticipated, or could be expedited, depending upon funding availability. From the inception of the Amtrak *Cascades* program, implementation goals have always been based on anticipated funding as well as market demand.

# Chapter Two: Data Collection

This chapter presents technical definitions and general methodology for developing operating costs for the Amtrak *Cascades* program. It also presents the approach used for data collection.

## What is the definition of line item cost categories?

Operating costs for the Pacific Northwest Rail Corridor's Amtrak *Cascades* service can be broken into three categories:

- **Train Cost:** Each train has a direct cost, which changes with the number of trains operated.
- **System Cost:** The system has a cost which does not change directly with a change in the number of trains or the number of passengers. The system cost is allocated equally among the trains. Some items in this category are not actually fixed costs because they change, perhaps indirectly, as the number of trains, passengers, and trainsets change.
- **Passenger Cost:** Passengers have an individual cost. The passenger cost is allocated to trains by ridership. The projections do not accurately reflect the relationship of passengers to individual trains, which would result in needlessly complex calculation and explanation. The total passenger cost is allocated equally among the trains. For details of projected ridership and revenue by train, see **Appendix B**.[1]

[1] *These tables, taken from the Ridership and Revenue Forecast technical paper contain data intended to facilitate understanding of the vast amount of detailed information developed by the ridership and revenue forecasting process. The origin of all data related to ridership and revenue projection is the Station Pair Forecast Summary presented in this Appendix. These numbers were rounded in the tables presented in Exhibit 7-1 (Results by Market) of the Ridership and Revenue Forecasts technical paper. The totals shown in this table are derived from the rounded total shown in the Station Pair Forecast. Thus, the total shown in Results by Market does not appear to be the total of the individual totals shown in Results by Market.*

*This rounded Results by Market table was generally used to support the summary tables found in this report. When more detail than this rounded data was needed for calculations, the data was extracted from the Station Pair Forecast Summary rather than the Results by Market tables. The results of these calculations were rounded for presentation in summary form. Again, some totals may to be different from the sum of the numbers represented, but the difference is not statistically significant. The summary tables in the Ridership and Revenue forecast and the Operating Cost white papers accurately represent the situations that are being described in the text.*

Below are brief definitions of each line item as it is referred to in Amtrak's Revenue and Expense report.

**Exhibit 2-1** provides information extracted from this report. In the last reporting period available (2001-2002) the income from the Amtrak *Cascades* service resulted in a deficit of $13,911,196 on expenses of $24,382,936 and revenues of $10,471,740.

## Train Cost

- **Train and Engine Crews:** Labor cost for engineer, conductor(s) and other train operating staff.
- **Train Fuel and Power:** Cost for locomotive fuel. The term power does not apply because the Amtrak *Cascades* trains do not use electric locomotives.
- **Onboard-Service:** Labor cost for staff involved in dispensing food and beverages on trains to passengers.
- **Onboard-Supplies:** Cost for food, beverages and consumable supplies dispensed on trains to passengers and non-consumable supplies used for customer service on trains.
- **Maintenance-of-Way**: Cost for maintaining track (e.g. track, signals, crossings) and facilities (e.g. stations, other buildings).
- **Insurance**: Purchased property and liability insurance and cost of self-insurance.
- **Railroad Performance Payments**: Payments to railroad for keeping trains on schedule.

## System Cost

- **Seattle Business Unit (SBU) Advertising:** Cost for advertising Amtrak *Cascades* service.
- **General Support:** Expenses not related directly to train operation and the use of resources not dedicated entirely to Amtrak *Cascades* operation (e.g. General Counsel, Claims Services, Customer Communications, Payroll, Safety and Environmental Control, Engineering, Materials Management, Human Resources, Technical Training, Police and Safety Services)
- **Business Unit Support:** Cost for administrative staff and services specific to Amtrak *Cascades* operation.
- **Product Line Support:** Cost for support (e.g. administration, management support, and training) of service elements that are unique to Amtrak *Cascades* service.

**Exhibit 2-1**
**Fiscal Year 2002 Revenue and Expenses for Washington Supported Amtrak *Cascades* Trains**

| REVENUE | PORTLAND, OR | VANCOUVER, BC | TOTAL |
|---|---|---|---|
| Transportation | $5,666,534 | $3,363,978 | 9,030,512 |
| Food & Beverage | 758,313 | 567,086 | 1,325,399 |
| Mail, Express and Other | 70,935 | 44,894 | 115,829 |
| **Total Revenues** | **$6,495,782** | **$3,975,958** | **$10,471,740** |

| EXPENSE | PORTLAND, OR | VANCOUVER, BC | TOTAL |
|---|---|---|---|
| Train and Engine Crews | 1,266,515 | 1,296,840 | 2,563,355 |
| Train Fuel and Power | 608,598 | 409,125 | 1,017,723 |
| Onboard Service - Labor | 329,930 | 447,197 | 777,127 |
| Onboard Service - Supplies | 390,646 | 301,291 | 691,937 |
| Rolling Stock Rental | 2,236 | 1,363 | 3,599 |
| Station Services | 1,152,796 | 564,702 | 1,717,498 |
| Transportation | 1,755,780 | 1,165,017 | 2,920,797 |
| Maintenance of Equipment | 1,749,207 | 1,584,909 | 3,334,116 |
| Maintenance-of-Way | 252,161 | 119,581 | 371,742 |
| Other Railroad | 43,298 | 21,682 | 64,980 |
| Railroad Performance Pmts. | 1,065,443 | 448,946 | 1,514,389 |
| Commissary | 162,186 | 169,087 | 331,273 |
| Crew Base | 24,412 | 449,948 | 474,360 |
| SBU Advertising | 314,523 | 214,445 | 528,968 |
| Commissions | 112,180 | 76,818 | 188,998 |
| Sales | 120,412 | 90,591 | 211,003 |
| Reservations | 476,446 | 328,572 | 805,018 |
| General Support | 968,181 | 752,944 | 1,721,125 |
| Product Line Support | 352,334 | 336,466 | 688,800 |
| Business Unit Support | 383,867 | 335,402 | 719,269 |
| Insurance | 756,583 | 509,785 | 1,266,368 |
| Depreciation | 707,398 | 433,481 | 1,140,879 |
| Interest & Taxes | 388,670 | 277,763 | 666,433 |
| General & Administration | 381,290 | 281,889 | 663,179 |
| **Total Expenses** | **$13,765,092** | **$10,617,844** | **$24,382,936** |
| **Balance** | **($7,269,310)** | **($6,641,886)** | **($13,911,196)** |
| **Passengers** | **221,605** | **152,825** | **374,430** |

- **Depreciation:** Cost for reduced value of vehicles and other equipment over time (incremental replacement cost). Washington State Department of Transportation will own all of the train equipment represented in the operating plan. State government does not typically use a depreciation expense on such property. No depreciation expense is shown in the 2008 and 2023 scenarios.
- **Interest and Taxes:** Cost on properties owned. It is anticipated that train equipment will be purchased on a cash basis with taxes due on purchase included in the capitalized amount for the equipment. No Interest and Tax expense is shown in the 2008 and 2023 scenarios.
- **General and Administrative:** Amtrak corporate level support (e.g. Employee Communications, Inspector General, Government Affairs, Law, Finance and Administration, Labor Relations).
- **Rolling Stock Rental:** Rental fees associated with equipment needed if current equipment breaks down and needs to be taken out of service.
- **Transportation:** Personnel supervising and managing the service and associated costs as well as the cost of buses in lieu of train service and alternative transportation for passengers during service interruptions.
- **Maintenance of Equipment:** Cost of vehicle maintenance.
- **Other Railroad:** Railroad (the freight carrier-Burlington Northern and Santa Fe Railway Company for the Amtrak *Cascades*) charges not specific to train operation (e.g., administration, control center functions, avoidable costs).
- **Crew Base:** Management and operation of facilities at which crews report for duty including personnel and facilities managing crew work assignments.
- **Reservations:** Cost related to managing passenger reservations and the maintenance of information technology systems used for passenger reservations.

## Passenger Cost

- **Station Services:** Labor costs for station staff (e.g. ticket agent, janitors) and utilities expenses for stations.
- **Commissary:** Cost for staff and equipment used in maintenance of passenger service supplies used on trains.
- **Commissions:** Fees paid to travel agents and to credit card services
- **Sales:** Marketing support and the cost of non-station ticketing (e.g. tickets by mail).

## How were revenue and expense data assembled?

The Revenue and Expense report could not be used directly as a source document for revenue and expense projection. Four characteristics of the current service will not continue throughout the development of the program.

- Two of the six trains between Seattle, WA and Portland, OR are Amtrak service not supported by Washington State. The ridership, revenue, and expenses of these trains are part of the Amtrak *Cascades* service but are not shown in the Revenue and Expense report.
- Because the Amtrak *Cascades* service is infrequent, many local passengers ride the Amtrak *Coast Starlight* intercity trains. The ridership, revenue, and expenses of these trains will be part of the Amtrak *Cascades* service but are not shown in the Revenue and Expense report.
- The Revenue and Expense report includes trains 513 and 516 between Seattle and Bellingham. These trains have a longer schedule running time than the Seattle, WA to Vancouver, BC service for that part of the trip and do not serve one of the two termini of the service. Ridership, revenue, and expenses are considerably different from the Seattle, WA to Vancouver, BC trains.
- The revenue shown in the Revenue and Expense report includes transportation revenue that is not mileage-based, such as the extra fare for Business Class. In addition, the mileage-based fares during the reporting period may not have been consistent.

Projections must be made from a consistent base. Before continuing with the projections, a revised revenue and expense sheet was prepared that does not include revenue or expenses for trains 513 and 516. In addition, WSDOT, Amtrak, and the project team agreed on a method of reflecting the mileage-based part of the revenue in a consistent manner throughout the period. The revised Revenue and Expense statement, used only for the purpose of a consistent and accurate base for the Amtrak *Cascades* service, is shown in **Exhibit 2-2**, on the following page.

In addition, a revised operating plan for each future scenario and alternative was developed ("Amtrak *Cascades* Plan for Washington State: 2003-2023 Technical Paper: Operating and Infrastructure Plan"). The revised operating plans include timetable and crew/equipment plans that provide a basis for ridership and revenue forecasts ("Amtrak *Cascades* Plan for Washington State: 2003-2023 Technical Paper: Ridership and Revenue Forecasts"). These data are also provided in **Appendix C**.

**Exhibit 2-2**
**Revised Fiscal Year 2002 Revenue and Expenses Used as Basis for Projections**

| REVENUE | PORTLAND, OR | VANCOUVER, BC | TOTAL |
|---|---|---|---|
| Transportation | $4,728,124 | $3,170,761 | 7,898,885 |
| Food & Beverage | 758,313 | 475,104 | 1,233,417 |
| Mail, Express and Other | 70,935 | 28,828 | 99,763 |
| **Total Revenues** | **$5,557,372** | **$3,674,693** | **$9,232,065** |

| EXPENSE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Train and Engine Crews | 1,266,515 | 663,242 | 1,929,757 |
| Train Fuel and Power | 608,598 | 251,529 | 860,127 |
| Onboard Service - Labor | 329,930 | 343,983 | 673,913 |
| Onboard Service - Supplies | 390,646 | 251,500 | 642,146 |
| Rolling Stock Rental | 2,236 | 1,181 | 3,417 |
| Station Services | 1,152,796 | 346,079 | 1,498,875 |
| Transportation | 1,755,780 | 824,839 | 2,580,619 |
| Maintenance of Equipment | 1,749,207 | 826,465 | 2,575,672 |
| Maintenance-of-Way | 252,161 | 60,530 | 312,691 |
| Other Railroad | 43,298 | 10,858 | 54,156 |
| Railroad Performance Pmts. | 1,065,443 | 192,411 | 1,257,854 |
| Commissary | 162,186 | 143,450 | 305,636 |
| Crew Base | 24,412 | 357,569 | 381,981 |
| SBU Advertising | 314,523 | 147,350 | 461,873 |
| Commissions | 112,180 | 63,185 | 175,365 |
| Sales | 120,412 | 66,451 | 186,863 |
| Reservations | 476,446 | 224,881 | 701,327 |
| General Support | 968,181 | 457,702 | 1,425,883 |
| Product Line Support | 352,334 | 187,108 | 539,442 |
| Business Unit Support | 383,867 | 198,486 | 582,353 |
| Insurance | 756,583 | 331,317 | 1,087,900 |
| Depreciation | 707,398 | 256,238 | 963,636 |
| Interest & Taxes | 388,670 | 180,945 | 569,615 |
| General & Administration | 381,290 | 176,888 | 558,178 |
| **Total Expenses** | **$13,765,092** | **$6,564,187** | **$20,329,279** |
| **Balance** | ($8,207,720) | ($2,889,494) | ($11,097,214) |
| **Passengers** | 221,605 | 104,596 | 326,201 |

# Chapter Three: Methodology

The methodology used to forecast operating expenses for each of the future scenarios was relatively straightforward. An examination was made of each line item and how it might change in the future with improved infrastructure and increased services. The projections were developed using the train schedules, crew plan, and the equipment plan (presented in **Appendix C**).

## General Assumptions

Some general assumptions used in this analysis include:

- All future service trainsets will have characteristics similar to the current Talgo trainsets. All future locomotives will be a new design with characteristics suitable for high speed operation. Future trainsets will be equipped with two locomotives instead of a locomotive and a de-motored locomotive serving as a cab car.
- There will be no new stations and no new station stops except the Tacoma station is relocated approximately two city blocks from the Point Defiance Line (current Burlington Northern and Santa Fe Railway Company (BNSF) freight route) to the Point Defiance Bypass in 2008.[1] In the 2023 Revision A Scott Road scenario, an alternative Vancouver, BC terminal is substituted for the current facility. Neither change involves a significant change in revenue or expenses.
- Fiscal year 2001-2002 dollars were used to project revenue and expenses.

## Revenue Projection Method

The Amtrak *Cascades* Revenue and Expense statement for Washington for fiscal year 2002 shows revenue for the Washington State supported part of the Amtrak *Cascades* service. Because of characteristics of the accounting method, the revenue numbers shown were not suitable to use as a basis for ridership and revenue projection. For example, business class passengers pay an extra fare that shows as revenue, but is not based on miles traveled. The WSDOT project team and Amtrak agreed upon a mileage based method for stating current and projected revenue.

### Transportation

The division of passenger miles and revenue for the base and the projections was developed from the Station Pair Forecast Summary. **Appendix D** shows the Seattle, WA to Vancouver, BC and the Portland, OR to Seattle, WA

[1] *Amtrak Cascades Plan for Washington State: 2003-2023 Technical Paper: Operating and Capital Plan, Chapter 4, discussion of Timetable C projects.*

section of the passenger miles and revenue for each station pair. The tables establish a Washington component for each station pair (station pairs that include a station south of Portland must have the miles and revenue for the distance south of Portland removed from the Washington calculations). The Washington part of the passenger miles and revenue are prorated into the Portland to Seattle (south) and Seattle to Vancouver, BC (north) components. For example, a Bellingham, WA to Eugene, OR passenger pays a fare that represents travel in Washington and in Oregon (south of Portland). Of the Washington component of the fare, a part represents the fare for travel between Bellingham and Seattle and the remainder represents the fare for travel between Seattle and Portland.

### Food and Beverage

The Revenue and Expense report shows that food and beverage revenue is thirteen percent to eighteen percent of transportation revenue by train. The ratio for total food and beverage revenue to total transportation revenue is fifteen percent. The projections calculate food and beverage revenue as fifteen percent of the transportation revenue.

### Mail, Express, and Other

Amtrak *Cascades* carry a small amount of package express. This revenue is not associated with ridership; thus, the amounts on the Revenue and Expenses report are used. It is reasonable to assume that increased frequency, increased reliability, and reduced travel time will support additional small package express business. The Mail, Express, and Other revenue is increased by five percent over the base in 2008 and twenty percent over the base in 2023.

## Per Train Cost

The basis of the projection is the current cost per train. The current Seattle to Vancouver, BC and the Portland, OR to Seattle services have characteristics similar to the Amtrak *Cascades* service at full development of the program. Unlike the current service, all Portland, OR to Vancouver, BC trains will operate through Seattle rather than originating or terminating. Crew change will continue to occur at Seattle and it appears that other characteristics of the two sections of the corridor will remain similar to the current, making reasonable a separate analysis of the service north and south of Seattle.

The current Seattle to Bellingham service does not have similar cost and revenue characteristics to the Seattle to Vancouver, BC service because it serves only a portion of the market at a cost similar to service covering the entire market. The cost and revenue items for the Seattle to Bellingham service were excluded from the revenue and expense report before developing a per train cost. However, all of the Washington Amtrak *Cascades* service is included in the Revenue and Expense report presented in **Exhibit 2-1**.

Each cost and revenue item for the four individual Portland to Seattle trains was added then divided by four to obtain the per train cost and revenue. For the Seattle to Vancouver BC service, each cost and revenue item for the two individual trains was added and divided by two. **Exhibit 3-1** shows the adjusted per train revenue and expense for the 2001-2002 reporting period (the basis for all subsequent calculations). **Exhibits 3-2** through **3-8** on the following pages, show per train revenue and expense for the 2008 and 2023 scenarios.

In the 2008 and 2023 scenario per train revenue and expenses, the passengers shown for the Portland, OR and the Vancouver, BC trains do not add up to the total passengers shown in the complete Revenue and Expense sheets for those scenarios (Chapter Five). In the current situation, Portland, OR to Seattle, WA and Seattle to Vancouver, BC trains are separate trains with separate train numbers. In the 2008 and 2023 scenarios, trains operate through Seattle, carrying the same train number for the entire Portland to Vancouver, BC trip. Passengers traveling through Seattle will count twice; as Portland to Seattle and Seattle to Vancouver, BC segment passengers. The total passengers figure represents the number of individual passengers. These data were extracted from the detailed station to station tables developed in the ridership study presented in **Appendix B** of this report. The per train and total passenger counts were used in calculations as appropriate.

The per train revenue and expense sheets contain a passenger ratio item. This number is the ratio of passengers per train for that scenario to the current passengers per train for that segment. No calculations are made from this figure, it is only shown as a matter of general information. They also contain a load factor item. This number is the ratio of passengers to seats (assumed to be 313 for the trains to be used in the 2008 and 2013 scenarios). No calculations are made from these figures; however, they provide general information about the utilization of the capacity of the train. At this point, the load factor represents individual passengers per seat for the entire route (Train Load Factor). Some trains show a Train Load Factor of over one hundred percent. This is a result of individual seats being used by multiple passengers traveling a distance less than that of the segment. For example, a passenger travels from Bellingham to Everett and another passenger boards at Everett and uses the same seat from Everett to Seattle. **Exhibit 3-8** (on page 3-11) includes a table of station pair load factors (Segment Load Factor). The Segment Load Factor indicates loading between individual station pairs. A segment load factor of over one hundred percent indicates that passengers are standing (or more likely, occupying seats in the bistro car).

**Exhibit 3-1**
**2002 per Train Revenue and Expenses Base**

| Per Train | 2002 Portland, OR | 2002 Vancouver, BC |
|---|---|---|
| Transportation | $1,182,031 | $1,585,380 |
| Food & Beverage | $189,578 | $237,552 |
| Mail, Express, and Other | $17,734 | $14,414 |
| **Total Revenues** | **$1,389,343** | **$1,837,346** |
| | | |
| Train and Engine Crews | $316,629 | $331,621 |
| Train Fuel and Power | $152,150 | $125,765 |
| Onboard Service - Labor | $82,483 | $171,992 |
| Onboard Service - Supplies | $97,662 | $125,750 |
| Rolling Stock Rental | $559 | $591 |
| Station Services | $288,199 | $173,040 |
| Transportation | $438,945 | $412,420 |
| Maintenance of Equipment | $437,302 | $413,233 |
| Maintenance-of-Way | $63,040 | $30,265 |
| Other Railroad | $10,825 | $5,429 |
| Railroad Performance Pmts. | $266,361 | $96,206 |
| Commissary | $40,547 | $71,725 |
| Crew Base | $6,103 | $178,785 |
| SBU Advertising | $78,631 | $73,675 |
| Commissions | $28,045 | $31,593 |
| Sales | $30,103 | $33,226 |
| Reservations | $119,112 | $112,441 |
| General Support | $242,045 | $228,851 |
| Product Line Support | $88,084 | $93,554 |
| Business Unit Support | $95,967 | $99,243 |
| Insurance | $189,146 | $165,659 |
| Depreciation | $176,850 | $128,119 |
| Interest & Taxes | $97,168 | $90,473 |
| General & Administration | $95,323 | $88,444 |
| **Total Expenses** | **$3,441,273** | **$3,282,094** |
| | | |
| **Income (Deficit)** | **($2,051,930)** | **($1,444,747)** |
| | | |
| Passengers | 55,401 | 52,298 |
| Load Factor | 48% | 46% |
| Trains | 4 | 2 |

**Exhibit 3-2**
**Revenue and Expenses per Train for 2008 and Comparison to 2002**

| Per Train | 2008 | | Change from 2002 | |
|---|---|---|---|---|
| | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC |
| Transportation | $1,357,921 | $1,605,555 | 115% | 101% |
| Food & Beverage | $203,688 | $240,833 | 107% | 101% |
| Mail, Express, and Other | $18,620 | $15,135 | 105% | 105% |
| **Total Revenues** | **$1,580,229** | **$1,861,523** | **114%** | **101%** |
| | | | | |
| Train and Engine Crews | $316,629 | $165,811 | 100% | 50% |
| Train Fuel and Power | $146,064 | $120,734 | 96% | 96% |
| Onboard Service - Labor | $82,483 | $85,996 | 100% | 50% |
| Onboard Service - Supplies | $109,294 | $191,558 | 112% | 152% |
| Rolling Stock Rental | $559 | $591 | 100% | 100% |
| Station Services | $103,752 | $58,833 | 36% | 34% |
| Transportation | $158,020 | $123,726 | 36% | 30% |
| Maintenance of Equipment | $603,476 | $570,261 | 138% | 138% |
| Maintenance-of-Way | $63,040 | $30,265 | 100% | 100% |
| Other Railroad | $3,897 | $1,629 | 36% | 30% |
| Railroad Performance Pmts. | $266,361 | $96,206 | 100% | 100% |
| Commissary | $45,376 | $109,260 | 112% | 152% |
| Crew Base | $3,174 | $46,484 | 52% | 26% |
| SBU Advertising | $39,315 | $36,838 | 50% | 50% |
| Commissions | $31,385 | $48,126 | 112% | 152% |
| Sales | $33,689 | $50,613 | 112% | 152% |
| Reservations | $42,880 | $42,727 | 36% | 38% |
| General Support | $87,136 | $77,809 | 36% | 34% |
| Product Line Support | $31,710 | $31,808 | 36% | 34% |
| Business Unit Support | $34,548 | $33,743 | 36% | 34% |
| Insurance | $189,146 | $165,659 | 100% | 100% |
| Depreciation | | | | |
| Interest & Taxes | | | | |
| General & Administration | $34,316 | $30,071 | 36% | 34% |
| **Total Expenses** | **$2,426,249** | **$2,118,745** | **77%** | **69%** |
| | | | | |
| **Income (Deficit)** | **($846,020)** | **($257,222)** | **48%** | **21%** |
| | | | | |
| Passengers | 62,000 | 79,667 | 112% | 152% |
| Load Factor | 54% | 70% | 112% | 152% |
| Trains | 16 | 6 | 400% | 300% |

**Exhibit 3-3**
**Revenue and Expenses per Train for 2008 Increased Fare and Comparison to 2002**

| Per Train | 2008 Increased Fare | | Change from 2002 | |
|---|---|---|---|---|
| | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC |
| Transportation | $1,505,775 | $1,705,314 | 127% | 108% |
| Food & Beverage | $225,866 | $255,797 | 119% | 108% |
| Mail, Express, and Other | $18,620 | $15,135 | 105% | 105% |
| **Total Revenues** | **$1,750,262** | **$1,976,245** | **126%** | **108%** |
| | | | | |
| Train and Engine Crews | $316,629 | $165,811 | 100% | 50% |
| Train Fuel and Power | $146,064 | $120,734 | 96% | 96% |
| Onboard Service - Labor | $82,483 | $85,996 | 100% | 50% |
| Onboard Service - Supplies | $97,549 | $165,229 | 100% | 131% |
| Rolling Stock Rental | $559 | $591 | 100% | 100% |
| Station Services | $103,752 | $58,833 | 36% | 34% |
| Transportation | $158,020 | $123,726 | 36% | 30% |
| Maintenance of Equipment | $603,476 | $570,261 | 138% | 138% |
| Maintenance-of-Way | $63,040 | $30,265 | 100% | 100% |
| Other Railroad | $3,897 | $1,629 | 36% | 30% |
| Railroad Performance Pmts. | $266,361 | $96,206 | 100% | 100% |
| Commissary | $40,500 | $94,243 | 100% | 131% |
| Crew Base | $3,174 | $46,484 | 52% | 26% |
| SBU Advertising | $39,315 | $36,838 | 50% | 50% |
| Commissions | $28,013 | $41,511 | 100% | 131% |
| Sales | $30,068 | $43,656 | 100% | 131% |
| Reservations | $42,880 | $42,727 | 36% | 38% |
| General Support | $87,136 | $77,809 | 36% | 34% |
| Product Line Support | $31,710 | $31,808 | 36% | 34% |
| Business Unit Support | $34,548 | $33,743 | 36% | 34% |
| Insurance | $189,146 | $165,659 | 100% | 100% |
| Depreciation | | | | |
| Interest & Taxes | | | | |
| General & Administration | $34,316 | $30,071 | 36% | 34% |
| **Total Expenses** | **$2,402,635** | **$2,063,827** | **76%** | **67%** |
| | | | | |
| **Income (Deficit)** | **($652,373)** | **($87,582)** | **37%** | **7%** |
| | | | | |
| Passengers | 55,338 | 68,717 | 100% | 131% |
| Load Factor | 48% | 60% | 100% | 131% |
| Trains | 16 | 6 | 400% | 300% |

**Exhibit 3-4**
**Revenue and Expenses per Train for 2023 and Comparison to 2002 and 2008**

| | 2023 | | Change from 2002 | | Change from 2008 | |
|---|---|---|---|---|---|---|
| Per Train | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC |
| Transportation | $1,829,700 | $2,759,957 | 155% | 174% | 135% | 172% |
| Food & Beverage | $269,752 | $612,583 | 142% | 258% | 132% | 254% |
| Mail, Express, and Other | $21,281 | $17,297 | 120% | 120% | 114% | 114% |
| **Total Revenues** | **$2,120,732** | **$3,389,837** | **153%** | **184%** | **134%** | **182%** |
| | | | | | | |
| Train and Engine Crews | $284,966 | $235,451 | 90% | 71% | 90% | 142% |
| Train Fuel and Power | $127,806 | $105,642 | 84% | 84% | 88% | 88% |
| Onboard Service - Labor | $74,234 | $122,114 | 90% | 71% | 90% | 142% |
| Onboard Service - Supplies | $138,963 | $324,275 | 142% | 258% | 127% | 169% |
| Rolling Stock Rental | $559 | $591 | 100% | 100% | 100% | 100% |
| Station Services | $92,224 | $86,520 | 32% | 50% | 89% | 147% |
| Transportation | $105,347 | $148,471 | 24% | 36% | 67% | 120% |
| Maintenance of Equipment | $507,270 | $479,350 | 116% | 116% | 84% | 84% |
| Maintenance-of-Way | $85,104 | $40,858 | 135% | 135% | 135% | 135% |
| Other Railroad | $47,581 | $46,832 | 440% | 863% | 1221% | 2875% |
| Railroad Performance Pmts. | $319,633 | $115,447 | 120% | 120% | 120% | 120% |
| Commissary | $57,694 | $184,960 | 142% | 258% | 127% | 169% |
| Crew Base | $2,929 | $89,392 | 48% | 50% | 92% | 192% |
| SBU Advertising | $39,315 | $36,838 | 50% | 50% | 100% | 100% |
| Commissions | $39,905 | $81,469 | 142% | 258% | 127% | 169% |
| Sales | $42,834 | $85,680 | 142% | 258% | 127% | 169% |
| Reservations | $57,174 | $85,455 | 48% | 76% | 133% | 200% |
| General Support | $77,454 | $114,426 | 32% | 50% | 89% | 147% |
| Product Line Support | $28,187 | $46,777 | 32% | 50% | 89% | 147% |
| Business Unit Support | $30,709 | $49,622 | 32% | 50% | 89% | 147% |
| Insurance | $189,146 | $165,659 | 100% | 100% | 100% | 100% |
| Depreciation | | | | | | |
| Interest & Taxes | | | | | | |
| General & Administration | $30,503 | $44,222 | 32% | 50% | 89% | 147% |
| **Total Expenses** | **$2,379,538** | **$2,690,047** | **75%** | **88%** | **98%** | **127%** |
| | | | | | | |
| **Income (Deficit)** | **($258,806)** | **$699,790** | **15%** | **-57%** | **31%** | **-272%** |
| | | | | | | |
| Passengers | 78,831 | 134,863 | 142% | 258% | 127% | 169% |
| Load Factor | 69% | 118% | 142% | 258% | 127% | 169% |
| Trains | 26 | 8 | 650% | 400% | 163% | 133% |

**Exhibit 3-5**
**Revenue and Expenses per Train for 2023 Increased Fare and Comparison to 2002 and 2008**

| | 2023 Increase | | Change from 2002 | | Change from 2008 | |
|---|---|---|---|---|---|---|
| Per Train | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC |
| Transportation | $2,279,271 | $3,336,049 | 193% | 210% | 168% | 208% |
| Food & Beverage | $228,321 | $502,319 | 120% | 211% | 112% | 209% |
| Mail, Express, and Other | $21,281 | $17,297 | 120% | 120% | 114% | 114% |
| **Total Revenues** | **$2,528,872** | **$3,855,665** | **182%** | **210%** | **160%** | **207%** |
| | | | | | | |
| Train and Engine Crews | $284,966 | $235,451 | 90% | 71% | 90% | 142% |
| Train Fuel and Power | $127,806 | $105,642 | 84% | 84% | 88% | 88% |
| Onboard Service - Labor | $74,234 | $122,114 | 90% | 71% | 90% | 142% |
| Onboard Service - Supplies | $117,620 | $265,906 | 120% | 211% | 108% | 139% |
| Rolling Stock Rental | $559 | $591 | 100% | 100% | 100% | 100% |
| Station Services | $92,224 | $86,520 | 32% | 50% | 89% | 147% |
| Transportation | $105,347 | $148,471 | 24% | 36% | 67% | 120% |
| Maintenance of Equipment | $507,270 | $479,350 | 116% | 116% | 84% | 84% |
| Maintenance-of-Way | $85,104 | $40,858 | 135% | 135% | 135% | 135% |
| Other Railroad | $47,581 | $46,832 | 440% | 863% | 1221% | 2875% |
| Railroad Performance Pmts. | $319,633 | $115,447 | 120% | 120% | 120% | 120% |
| Commissary | $48,833 | $151,667 | 120% | 211% | 108% | 139% |
| Crew Base | $2,929 | $89,392 | 48% | 50% | 92% | 192% |
| SBU Advertising | $39,315 | $36,838 | 50% | 50% | 100% | 100% |
| Commissions | $33,776 | $66,804 | 120% | 211% | 108% | 139% |
| Sales | $36,255 | $70,257 | 120% | 211% | 108% | 139% |
| Reservations | $57,174 | $85,455 | 48% | 76% | 133% | 200% |
| General Support | $77,454 | $114,426 | 32% | 50% | 89% | 147% |
| Product Line Support | $28,187 | $46,777 | 32% | 50% | 89% | 147% |
| Business Unit Support | $30,709 | $49,622 | 32% | 50% | 89% | 147% |
| Insurance | $189,146 | $165,659 | 100% | 100% | 100% | 100% |
| Depreciation | | | | | | |
| Interest & Taxes | | | | | | |
| General & Administration | $30,503 | $44,222 | 32% | 50% | 89% | 147% |
| **Total Expenses** | **$2,336,625** | **$2,568,299** | **68%** | **78%** | **96%** | **121%** |
| | | | | | | |
| **Income (Deficit)** | **$192,247** | **$1,287,366** | **-9%** | **-89%** | **-23%** | **-500%** |
| | | | | | | |
| Passengers | 66,723 | 110,588 | 120% | 211% | 108% | 139% |
| Load Factor | 58% | 97% | 120% | 211% | 108% | 139% |
| Trains | 26 | 8 | 650% | 400% | 163% | 133% |

**Exhibit 3-6**
**Revenue and Expenses per Train for 2023 Revision A and Comparison to 2002 and 2008**

| | 2023 Revision A | | Change from 2002 | | Change from 2008 | |
|---|---|---|---|---|---|---|
| Per Train | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC |
| Transportation | $1,717,445 | $2,612,740 | 145% | 165% | 126% | 163% |
| Food & Beverage | $257,617 | $391,911 | 136% | 165% | 126% | 163% |
| Mail, Express, and Other | $21,281 | $17,297 | 120% | 120% | 114% | 114% |
| **Total Revenues** | **$1,996,342** | **$3,021,948** | **144%** | **164%** | **126%** | **162%** |
| | | | | | | |
| Train and Engine Crews | $284,966 | $218,870 | 90% | 66% | 90% | 132% |
| Train Fuel and Power | $127,806 | $105,642 | 84% | 84% | 88% | 88% |
| Onboard Service - Labor | $74,234 | $113,514 | 90% | 66% | 90% | 132% |
| Onboard Service - Supplies | $130,964 | $306,019 | 134% | 243% | 120% | 160% |
| Rolling Stock Rental | $559 | $591 | 100% | 100% | 100% | 100% |
| Station Services | $80,696 | $69,216 | 28% | 40% | 78% | 118% |
| Transportation | $87,789 | $123,726 | 20% | 30% | 56% | 100% |
| Maintenance of Equipment | $419,810 | $396,703 | 96% | 96% | 70% | 70% |
| Maintenance-of-Way | $85,104 | $40,858 | 135% | 135% | 135% | 135% |
| Other Railroad | $42,505 | $41,645 | 393% | 767% | 1091% | 2557% |
| Railroad Performance Pmts. | $319,633 | $115,447 | 120% | 120% | 120% | 120% |
| Commissary | $54,373 | $174,547 | 134% | 243% | 120% | 160% |
| Crew Base | $2,685 | $71,514 | 44% | 40% | 85% | 154% |
| SBU Advertising | $39,315 | $36,838 | 50% | 50% | 100% | 100% |
| Commissions | $37,608 | $76,882 | 134% | 243% | 120% | 160% |
| Sales | $40,368 | $80,856 | 134% | 243% | 120% | 160% |
| Reservations | $52,409 | $67,464 | 44% | 60% | 122% | 158% |
| General Support | $67,773 | $91,540 | 28% | 40% | 78% | 118% |
| Product Line Support | $24,663 | $37,422 | 28% | 40% | 78% | 118% |
| Business Unit Support | $26,871 | $39,697 | 28% | 40% | 78% | 118% |
| Insurance | $189,146 | $165,659 | 100% | 100% | 100% | 100% |
| Depreciation | | | | | | |
| Interest & Taxes | | | | | | |
| General & Administration | $26,690 | $35,378 | 28% | 40% | 78% | 118% |
| **Total Expenses** | **$2,215,966** | **$2,410,026** | **70%** | **79%** | **91%** | **114%** |
| | | | | | | |
| **Income (Deficit)** | **($219,624)** | **$611,922** | **12%** | **-50%** | **26%** | **-238%** |
| | | | | | | |
| Passengers | 74,293 | 127,270 | 134% | 243% | 120% | 160% |
| Load Factor | 65% | 111% | 134% | 243% | 120% | 160% |
| Trains | 28 | 10 | 700% | 500% | 175% | 167% |

**Exhibit 3-7**
**Revenue and Expenses per Train for 2023 Revision A Scott Road and Comparison to 2002 and 2008**

| | 2023 Revision A Scott Road | | Change from 2002 | | Change from 2008 | |
|---|---|---|---|---|---|---|
| Per Train | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC |
| Transportation | $1,718,283 | $2,802,547 | 145% | 177% | 127% | 175% |
| Food & Beverage | $257,743 | $420,382 | 136% | 177% | 127% | 175% |
| Mail, Express, and Other | $21,281 | $17,297 | 120% | 120% | 114% | 114% |
| **Total Revenues** | **$1,997,306** | **$3,240,225** | **144%** | **176%** | **126%** | **174%** |
| | | | | | | |
| Train and Engine Crews | $284,966 | $218,870 | 90% | 66% | 90% | 132% |
| Train Fuel and Power | $127,806 | $105,642 | 84% | 84% | 88% | 88% |
| Onboard Service - Labor | $74,234 | $113,514 | 90% | 66% | 90% | 132% |
| Onboard Service - Supplies | $131,033 | $327,924 | 134% | 261% | 120% | 171% |
| Rolling Stock Rental | $559 | $591 | 100% | 100% | 100% | 100% |
| Station Services | $80,696 | $69,216 | 28% | 40% | 78% | 118% |
| Transportation | $87,789 | $123,726 | 20% | 30% | 56% | 100% |
| Maintenance of Equipment | $419,810 | $396,703 | 96% | 96% | 70% | 70% |
| Maintenance-of-Way | $85,104 | $40,858 | 135% | 135% | 135% | 135% |
| Other Railroad | $42,505 | $41,645 | 393% | 767% | 1091% | 2557% |
| Railroad Performance Pmts. | $319,633 | $115,447 | 120% | 120% | 120% | 120% |
| Commissary | $54,401 | $187,041 | 134% | 261% | 120% | 171% |
| Crew Base | $2,685 | $71,514 | 44% | 40% | 85% | 154% |
| SBU Advertising | $39,315 | $36,838 | 50% | 50% | 100% | 100% |
| Commissions | $37,628 | $82,385 | 134% | 261% | 120% | 171% |
| Sales | $40,389 | $86,644 | 134% | 261% | 120% | 171% |
| Reservations | $52,409 | $67,464 | 44% | 60% | 122% | 158% |
| General Support | $67,773 | $91,540 | 28% | 40% | 78% | 118% |
| Product Line Support | $24,663 | $37,422 | 28% | 40% | 78% | 118% |
| Business Unit Support | $26,871 | $39,697 | 28% | 40% | 78% | 118% |
| Insurance | $189,146 | $165,659 | 100% | 100% | 100% | 100% |
| Depreciation | | | | | | |
| Interest & Taxes | | | | | | |
| General & Administration | $26,690 | $35,378 | 28% | 40% | 78% | 118% |
| **Total Expenses** | **$2,216,105** | **$2,455,716** | **70%** | **80%** | **91%** | **116%** |
| | | | | | | |
| **Income (Deficit)** | **($218,799)** | **$784,509** | **12%** | **-64%** | **26%** | **-305%** |
| | | | | | | |
| Passengers | 74,332 | 136,380 | 134% | 261% | 120% | 171% |
| Load Factor | 65% | 119% | 134% | 261% | 120% | 171% |
| Trains | 28 | 10 | 700% | 500% | 175% | 167% |

**Exhibit 3-8**
**Revenue and Expenses per Train for 2023 Revision A Increased Fare and Comparison to 2002 and 2008**

| | 2023 Revision A Increased Fare | | Change from 2002 | | Change from 2008 | |
|---|---|---|---|---|---|---|
| Per Train | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC | Portland, OR | Vancouver, BC |
| Transportation | $2,138,909 | $3,190,466 | 181% | 201% | 158% | 199% |
| Food & Beverage | $320,836 | $478,570 | 169% | 201% | 158% | 199% |
| Mail, Express, and Other | $21,281 | $17,297 | 120% | 120% | 114% | 114% |
| **Total Revenues** | **$2,481,026** | **$3,686,332** | **179%** | **201%** | **157%** | **198%** |
| | | | | | | |
| Train and Engine Crews | $284,966 | $218,870 | 90% | 66% | 90% | 132% |
| Train Fuel and Power | $127,806 | $105,642 | 84% | 84% | 88% | 88% |
| On-Board Service - Labor | $74,234 | $113,514 | 90% | 66% | 90% | 132% |
| On-Board Service - Supplies | $110,792 | $253,024 | 113% | 201% | 101% | 132% |
| Rolling Stock Rental | $559 | $591 | 100% | 100% | 100% | 100% |
| Station Services | $80,696 | $69,216 | 28% | 40% | 78% | 118% |
| Transportation | $87,789 | $123,726 | 20% | 30% | 56% | 100% |
| Maintenance of Equipment | $419,810 | $396,703 | 96% | 96% | 70% | 70% |
| Maintenance-of-Way | $85,104 | $40,858 | 135% | 135% | 135% | 135% |
| Other Railroad | $42,505 | $41,645 | 393% | 767% | 1091% | 2557% |
| Railroad Performance Pmts. | $319,633 | $115,447 | 120% | 120% | 120% | 120% |
| Commissary | $45,998 | $144,320 | 113% | 201% | 101% | 132% |
| Crew Base | $2,685 | $71,514 | 44% | 40% | 85% | 154% |
| SBU Advertising | $39,315 | $36,838 | 50% | 50% | 100% | 100% |
| Commissions | $31,816 | $63,568 | 113% | 201% | 101% | 132% |
| Sales | $34,150 | $66,854 | 113% | 201% | 101% | 132% |
| Reservations | $52,409 | $67,464 | 44% | 60% | 122% | 158% |
| General Support | $67,773 | $91,540 | 28% | 40% | 78% | 118% |
| Product Line Support | $24,663 | $37,422 | 28% | 40% | 78% | 118% |
| Business Unit Support | $26,871 | $39,697 | 28% | 40% | 78% | 118% |
| Insurance | $189,146 | $165,659 | 100% | 100% | 100% | 100% |
| Depreciation | | | | | | |
| Interest & Taxes | | | | | | |
| General & Administration | $26,690 | $35,378 | 28% | 40% | 78% | 118% |
| **Total Expenses** | **$2,175,410** | **$2,299,488** | **69%** | **75%** | **90%** | **109%** |
| | | | | | | |
| **Income (Deficit)** | **$305,617** | **$1,386,844** | **-17%** | **-113%** | **-36%** | **-539%** |
| | | | | | | |
| Passengers | 62,850 | 105,230 | 113% | 201% | 101% | 132% |
| Load Factor | 55% | 92% | 113% | 201% | 101% | 132% |
| Trains | 28 | 10 | 700% | 500% | 175% | 167% |

**Exhibit 3-9**
**Segment Detail: Passengers per Day, Passengers per Train, and Segment Load Factor**

| | Passengers Per Day | | | | Passengers Per Train | | | | Load Factor (313 seats) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2008 | 2023 | 2023A | 2023A Scott Road | 2008 | 2023 | 2023A | 2023A Scott Road | 2008 | 2023 | 2023A | 2023A Scott Road |
| Vancouver, BC to Bellingham | 805 | 1,947 | 2,359 | 2,608 | 101 | 243 | 236 | 261 | 32% | 78% | 75% | 83% |
| Bellingham to Mt Vernon | 1,018 | 2,412 | 2,860 | 3,041 | 127 | 301 | 286 | 304 | 41% | 96% | 91% | 97% |
| Mt Vernon to Everett | 1,106 | 2,537 | 2,973 | 3,138 | 138 | 317 | 297 | 314 | 44% | 101% | 95% | 100% |
| Everett to Edmonds | 1,135 | 2,544 | 2,948 | 3,078 | 142 | 318 | 295 | 308 | 45% | 102% | 94% | 98% |
| Edmonds to Seattle | 1,089 | 2,573 | 2,934 | 3,047 | 136 | 322 | 293 | 305 | 43% | 103% | 94% | 97% |
| Seattle to Tukwila | 2,128 | 4,540 | 4,625 | 4,640 | 82 | 175 | 165 | 166 | 26% | 56% | 53% | 53% |
| Tukwila to Tacoma | 2,089 | 4,336 | 4,376 | 4,379 | 80 | 167 | 156 | 156 | 26% | 53% | 50% | 50% |
| Tacoma to Olympia | 2,431 | 5,079 | 5,142 | 5,143 | 94 | 195 | 184 | 184 | 30% | 62% | 59% | 59% |
| Olympia to Centralia | 2,420 | 5,076 | 5,129 | 5,131 | 93 | 195 | 183 | 183 | 30% | 62% | 59% | 59% |
| Centralia to Kelso | 2,372 | 4,977 | 5,028 | 5,029 | 91 | 191 | 180 | 180 | 29% | 61% | 57% | 57% |
| Kelso to Vancouver, WA | 2,264 | 4,763 | 4,813 | 4,814 | 87 | 183 | 172 | 172 | 28% | 59% | 55% | 55% |
| Vancouver, WA to Portland, OR | 1,934 | 4,089 | 4,128 | 4,129 | 74 | 157 | 147 | 147 | 24% | 50% | 47% | 47% |

## Adjustment Factors

Projected cost per train is based on the current cost per train with each expense item adjusted by an appropriate factor. The cost per train for system expenses is dependent upon the number of trains, except for maintenance of equipment, which is dependent upon the number of sets of equipment and the number of trains because one set of equipment may be used on one train per day or several. The direct cost per train is constant except for the Train and Engine crews and the On-Board Service Labor, which are also dependent upon the schedules (not the number of schedules) because of the possibility of scheduled overtime affecting labor cost.

### System Cost

#### Rolling Stock Rental

This item represents occasional need for relief locomotives or other equipment in case of failure. There should not be much need for relief equipment as the program develops, however the cost per train is left the same as current to provide contingency funding. This is a system expense because failures and failure rate have equal likelihood among all trains and are not the result of the operation of individual trains.

#### Station Services

The number of trains and the number of passengers increases significantly in 2008 and 2023; however, there are economies of scale and the cost will not increase at the same rate as trains and ridership. The calculations assume fifty percent increase in cost in 2008 and double the current cost in 2023. The current cost is one unit. **Exhibit 3-10** presents these Station Services calculations.

**Exhibit 3-10**
**Station Services Calculations**

| | Portland, OR | | Vancouver, BC | |
|---|---|---|---|---|
| | Station Services (SS) | SS per Train | Station Services | SS per Train |
| **2003** | 1 | .25 | 1 | .5 |
| **2008** | 1.5 | .09 (36%) | 1 | .17 (34%) |
| **2023** | 2 | .08 (32%) | 2 | .25 (50%) |
| **2023A** | 2 | .07 (28%) | 2 | .2 (40%) |

### Transportation

The current transportation cost includes twenty-eight percent for bus service supplementing the train service (twenty-two percent of the Transportation total) and alternative transportation because of derailments, floods, slides, and other severe conditions (six percent of the Transportation total). The Pacific Northwest Rail Corridor capital improvement program will significantly reduce the number of service interruptions and the resulting cost.

In 2008 the need for supplemental bus service will be reduced by fifty percent (to eleven percent of the base figure) because of additional train service. Infrastructure projects will reduce the instance of service disruption by twenty percent (to five percent of the base transportation figure).

In 2023 the need for supplemental bus service will be eliminated and infrastructure projects will reduce the instance of service disruption by eighty percent (to one percent of the base figure).

The number of trains and the number of passengers increases significantly in 2008 and 2023; however, there are economies of scale. Other components of this cost will not increase at the same rate as trains and ridership. The calculations assume fifty percent increase in Portland to Seattle cost in 2008 and double the current cost for both parts of the service in 2023. The current cost is one unit. **Exhibit 3-11** presents calculations for Transportation per Train.

### Maintenance of Equipment (MOE)

Maintenance of equipment is a system cost because one set of equipment may be used on several trains in the same day. Current train cost is one unit. Set equivalent is a factor that represents the increased use of each set as program development proceeds. Each set is currently used for two schedules per day. By 2023, many of the sets will be used for three or four schedules per day.

**Exhibit 3-11**
**Calculations for Transportation per Train**

| | PORTLAND, OR | | VANCOUVER, BC | |
|---|---|---|---|---|
| | TRANSPORTATION (T) | T PER TRAIN | TRANSPORTATION | T PER TRAIN |
| **2003** | 1 [0.72+0.28] | .25 | 1 [0.72+0.28] | .5 |
| **2008** | 1.32 [(0.72+0.16)*1.5] | .09 (36%) | 0.88 [(0.72+0.16)*1.0] | .15 (30%) |
| **2023** | 1.46 [(0.72+0.01)*2] | .06 (24%) | 1.46 [(0.72+0.01)*2] | .18 (36%) |
| **2023A** | 1.46 [(0.72+0.01)*2] | .05 (20%) | 1.46 [(0.72+0.01)*2] | .15 (30%) |

This calculation assumes that the cost of locomotive service is twice trainset service because of system complexity. The current MOE cost per trainset is one unit. Current locomotive cost is .67 units per trainset. Current car cost is .33 units per trainset. Future trainsets will have two locomotives instead of a locomotive and a demotored locomotive (cab car). The additional complexity increases locomotive maintenance by 67 percent, making future locomotive maintenance cost 1.67 x .67 = 1.12 units per trainset. Car maintenance remains static at .4 per trainset for a total train cost of 1.52 units per trainset.

There are currently no spare trainsets. The full development plan will have three spare trainsets.

Current operation uses one set for the Canada service. The full development plan uses through equipment on all Canada trains. **Exhibit 3-12** presents Maintenance calculations per Train.

**Exhibit 3-12**
**Maintenance Calculations per Train**

| | Sets (Revenue + spare) | Maintenance Factor | Set Equivalent | Maintenance Per Train |
|---|---|---|---|---|
| **2003** | 3 | 1 | 3 | .5 |
| **2008** | 9+1=10 | 1.52 | 15.20 | .69 (138%) |
| **2023** | 10+3=13 | 1.52 | 19.76 | .58 (116%) |
| **2023A** | 9+3=12 | 1.52 | 18.24 | .48 (96%) |

### Other Railroad

This component has the same relationship as General Support plus $1,500,000 additional control center cost (special training and compensation for train dispatchers, information center desk in control center) divided equally among all trains in 2023.

Additional control center cost:

- Additional training and compensation for train dispatchers $160 per shift for three shifts for six districts for 365 days per year.
- Clerical/public information position three positions 365 days per year at $146,000 annual each.
- $10,800 per year rounding the amount to the nearest $0.5 million and representing a contingency fund for the two items above.

### Crew Base

Crew base facilities will handle a significantly larger number of personnel, but they will be distributed throughout the day. Some areas such as crew lockers will be more extensive, and others will remain static because the number of crews using the facility simultaneously is similar to the current situation. The cost of crew assignment management will increase because of the increased number of crews operating the service. The increase will be mitigated by reduced assignment manipulation because of increased reliability. The current cost is one unit. The calculations assume that in 2023 the total Seattle to Portland crew base cost will be 300 percent and the total Seattle to Vancouver, BC crew base cost will be 200 percent. **Exhibit 3-13** presents the calculations for Crew Base per Train.

**Exhibit 3-13**
**Crew Base per Train**

| | PORTLAND, OR | | VANCOUVER, BC | |
|---|---|---|---|---|
| | CREW BASE | CREW BASE PER TRAIN | CREW BASE | CREW BASE PER TRAIN |
| **2003** | 1 | .25 | 1 | .5 |
| **2008** | 2 | .13 (52%) | 1 | .13 (26%) |
| **2023** | 3 | .12 (48%) | 2 | .25 (50%) |
| **2023A** | 3 | .11 (44%) | 2 | .2 (40%) |

### Seattle Business Unit (SBU) Advertising

In 2008, the advertising cost per train is assumed to remain the same as the current advertising cost. Total advertising cost would be 366 percent of the current advertising cost.

If the advertising cost per train remains static, the total advertising budget will be 566 percent of current for 2023 or 633 percent of current for 2023A. The ridership study has not anticipated the effect of such a significant increase in advertising budget. Being more conservative in estimating advertising cost, the calculations assume that the cost per train is fifty percent of the current cost per train, for a total program advertising budget of 283 percent of current for 2023 or 317 percent of current for timetable 2023A.

### Reservations

More passengers will require more reservation work; however more of the reservation work will be automated. Automation does not entirely eliminate personnel from handling passenger reservations, however. The number of clerks answering telephones will be reduced and the number of Information Technology positions handling reservation hardware and software will increase. Assume a fifty percent increase in the system cost of reservations in

2008 and triple the base period reservation cost in 2023. The current cost is one unit. **Exhibit 3-14** presents the calculations used for Reservations per train.

**Exhibit 3-14**
**General Support per Train**

| | Portland, OR | | Vancouver, BC | |
|---|---|---|---|---|
| | General Support | General Support per Train | General Support | General Support per Train |
| **2003** | 1 | .25 | 1 | .5 |
| **2008** | 1.5 | .09 (36%) | 1 | .17 (34%) |
| **2023** | 2 | .08 (32%) | 2 | .25 (50%) |
| **2023A** | 2 | .07 (28%) | 2 | .2 (40%) |

### General Support

Same relationship as Transportation except for the service interruption adjustment. **Exhibit 3-14** presents the calculations for General Support per Train.

### Product Line Support

Same relationship as General Support.

### Business Unit Support

Same relationship as General Support.

### Depreciation

Washington State ownership of the equipment will eliminate costs under this heading.

### Interest and Taxes

As with depreciation, Washington State ownership of the equipment will eliminate this item.

### General and Administrative

Same relationship as General Support.

## Train Costs

### Train and Engine Crews

The calculations assume that the current cost per Seattle to Vancouver, BC train is one unit. Because of scheduled overtime in the current arrangement that will not be present in 2023, the current cost per Portland to Seattle train is 0.9 units. The cost factor is the relationship between current crews per train and projected crews per train. The small amount of service between Seattle and Vancouver, BC results in full day's pay for some one way trips (of less than four hours) and significant overtime for others (also less than four hours). This is reflected in the fractional value for Seattle to Vancouver, BC crews in 2023. **Exhibit 3-15** presents the calculations for Crews per Train.

**Exhibit 3-15**
**Crews per Train**

| | PORTLAND, OR | | VANCOUVER, BC | |
|---|---|---|---|---|
| | CREWS | CREWS PER TRAIN | CREWS | CREWS PER TRAIN |
| **2003** | 2 | .5 | 2 | 1 |
| **2008** | 8 | .5 (100%) | 3 | .5 (50%) |
| **2023** | 13 | .45 (90%) | 5.7 | .71 (71%) |
| **2023A** | 14 | .45 (90%) | 6.6 | .66 (66%) |

### Train Fuel and Power

Calculated from TPC data: 96 percent per train for 2008 and 84 percent per train for 2023.[2]

### Onboard Service – Labor

Same ratio as train and engineer crews

### Maintenance of Way

Maintenance of way is a hybrid system/train cost. A fixed amount of maintenance is needed to maintain track to a certain condition, but the amount of maintenance is also affected by the number, and characteristics, of trains using the track.

[2]*See "Amtrak Cascades Plan for Washington State: 2003-2023 Technical Paper: Operating and Infrastructure Plan" Chapter 2. When calculating propulsive and resistive forces, the fuel consumption is also calculated.*

Projected costs for the service cannot be obtained by comparison with other rail lines and existing services because there are no comparable lines and services. The Northeast Corridor has equivalent labor and material cost, but the axle loading of Northeast Corridor trains is much greater than that of Talgo trains. Maintenance cost has a direct relationship with axle loading. Railway lines in Europe may have similar axle loading and traffic, but a different labor and material cost.

The current Maintenance of Way cost includes a charge for the difference between the cost of maintenance for freight service and for passenger service. This is not a simple relationship and the charge allocated to the trains may not be an accurate reflection of cost. Part of the incremental cost is directly associated with the effect of the freight trains on the track, which is (in terms of damage caused by the train to the track) about nine times that of the passenger trains. Higher track damage caused by train operation results in increased maintenance cost.

In 2008, the service will still be operating at conventional speed and almost entirely on mixed service track. There will be additional trackage and signal equipment, but there will be four times the number of passenger trains contributing to maintenance at the current per train rate. The Maintenance of Way cost per train will remain the same.

The cost on the shared track, fifty percent of the distance, can be expected to remain relatively static per train.

High speed track requires more maintenance than moderate speed track, but the gross tons and axle loading of the traffic on the high speed track will be much less than on the mixed traffic tracks. Lighter axle loading and gross tonnage results in lower maintenance cost. The service will be using the exclusive high speed track for fifty percent of the distance. The high speed track will also a have advanced signal system that will have a greater maintenance cost because of the greater complexity. The system that will be used has not yet been developed, so comparative maintenance cost is not available.

A reasonable assumption for 2023 is that the current per train maintenance cost may increase by seventy percent on the high speed track; fifty percent of the distance. The Maintenance-of -Way cost per train will increase by thirty-five percent.

### Railroad Performance Payments

Infrastructure projects that increase capacity and reliability should result in reduced performance tolerance (a train that looks late to the passengers is called on time by the railroad, which is compensated accordingly). Better on time performance plus greater precision will probably result in higher

payment, regardless of reduced performance tolerance. At program completion the cost per train will be 120 percent of the current cost.

#### Insurance

Although exposure increases, increased safety equipment and procedures may reduce cost. Insurance costs in general typically increase, so the cost per train is left the same as current.

### Passenger Cost

#### On-Board Service – Supplies

Varies with load factor ([Projected Passengers per Train]: [Current Passengers per Train])

#### Commissary

Varies with load factor ([Projected Passengers per Train]: [Current Passengers per Train])

#### Commissions

Varies with load factor ([Projected Passengers per Train]: [Current Passengers per Train])

#### Sales

Varies with load factor ([Projected Passengers per Train]: [Current Passengers per Train])

## Division of Revenue

The boarding station cannot be used to allocate revenue (or passenger miles) to the Portland to Seattle, Washington and Seattle to Vancouver, BC segments. The fare of a passenger boarding in Vancouver, BC and traveling to Salem, Oregon will apply in part to the Seattle to Vancouver, BC segment, the Portland to Seattle segment and the Salem to Portland segment. The revenue by train information from the ridership study cannot be used for calculations involving the individual Portland to Seattle and Seattle to Vancouver, BC segments. Revenue by train (and passenger miles by train when required) were obtained by using the data provided in the Station Pair Summary of the ridership study. In **Appendix D** the "WA part" column represents revenue for that line item without the Oregon portion. The "north part" column represents the proportion of the revenue for that line item that is allocated to the Seattle to Vancouver, BC segment. The "South" and "North" columns represent the calculated division of revenue for the two segments. The same formulae were used to allocate passenger miles to the Portland to Seattle and Seattle to Vancouver, BC segments when required.

# Chapter Four: Operating Revenue and Expense by Scenario

The analysis of the changing operating expenses and forecasted revenues are summarized in **Exhibits 4-1** and **4-2** (located on pages 4-4 and 405, respectively) and are shown in **Appendix E**.

The following discussion of the 2008 and 2023 scenarios compare 2008 and 2023 to the 2002 adjusted figures.

## Operating Revenue and Expense for 2008

Revenue increases by over two hundred percent from $9.2 million (the adjusted 2002 figure) to $36.5 million. Expenses increase by over one hundred percent from $20.3 million (the adjusted 2002 figure) to $51.5 million. The operating deficit increases by thirty-six percent from $11.1 million (the adjusted 2002 figure) to $15.1 million. The ratio of deficit to expense reduces from fifty-five percent (the adjusted 2002 figure) to twenty-nine percent. Ridership increases over three hundred percent from 0.3 million (adjusted 2002 figure) to 1.5 million. Passenger miles increase by only one hundred fifty percent from 82.9 million to 211.3 million. This indicates an increased use of the Amtrak *Cascades* service for shorter-distance travel between intermediate points, probably because of the increased convenience of the more frequent service.

The deficit per passenger decreases by sixty-nine percent from $34.02 (adjusted 2002 figure) to $10.69. The deficit per passenger mile decreases forty-six percent from thirteen cents (adjusted 2002 figure) to seven cents.

This deficit is not easily offset by a fare increase. The 2008 increased fare scenario represents the 2008 ridership under the same conditions except for a fare increase of twenty-three percent. Compared to the 2008 scenario, revenue increases by nine percent, expenses decrease by one percent, and the deficit decreases by twenty-seven percent. Ridership decreases by twelve percent and passenger miles decrease similarly as a result of the fare increase. The conflict between the business mission and the transportation mission of the service is apparent in these results.

## Operating Revenue and Expense for 2023

Revenue increases by almost eight hundred percent from $9.2 million (the adjusted 2002 figure) to $82.3 million. Expenses increase by over three hundred percent from $20.3 million (the adjusted 2002 figure) to $83.4 million. The operating deficit is reduced by ninety percent from $11.1 million (the adjusted 2002 figure) to $1.1 million. The ratio of deficit to expense reduces from fifty-five percent (the adjusted 2002 figure) to one percent. Ridership increases over eight hundred percent from 0.3 million (adjusted 2002 figure) to three million. Passenger miles increase by over four hundred fifty percent from 82.9 million to 456.5 million. This indicates an increased use of the Amtrak *Cascades* service for shorter-distance travel between intermediate points, probably because of the increased convenience of the more frequent service.

The deficit of thirty-eight cents per passenger could probably be offset by an equivalent fare increase without affecting ridership.

The 2023A scenario increases the number of Portland, OR to Seattle and Seattle to Vancouver, BC trains each by one pair (to fourteen and five, respectively). The change results in a five percent increase in revenue and a three percent increase in expenses from the 2023 scenario. The passenger count increases by seven percent over the 2023 scenario and the passenger miles increase similarly. The deficit decreases by ninety-seven percent from the 2023 scenario from $1.1 million to $0.3 million, which is one cent per passenger. This is accompanied by a reduction in equipment capital cost. The increased number of trains in the 2023 Revision A scenario can be run with one trainset less than the 2023 scenario.

The deficit of one cent per passenger could probably be offset by an equivalent fare increase without affecting ridership.

The 2023 Revision A Scott Road scenario moves the northern terminal of the Seattle to Vancouver, BC segment from Pacific Central Station in Vancouver to a location near the Scott Road Skytrain station in Surrey. The increased service area of the Greater Vancouver Terminal generates a ridership increase of three percent over the 2023 Revision A scenario. Revenue increases by fifteen percent over the 2023 Revision A scenario. Expenses increase by one-half percent, associated with the increases in Passenger expenses.

One expense of the 2023 Revision A Scott Road scenario cannot be represented using the available information. The success (represented by ridership increase) of the Greater Vancouver Terminal is dependent upon a transparent connection between the Amtrak *Cascades* trains and Skytrain. The Amtrak ticket should therefore be valid for continued travel on Skytrain. Regular Skytrain fares vary from $1.50 to $3.00 (in U.S. dollars) depending upon the distance traveled. Skytrain offers bulk fares at a significant discount. The division of revenue (Greater Vancouver ticket surcharge or other method) will be a result of negotiation between Amtrak and Skytrain. Train crew overtime will be reduced by about one hour per day (four person-hours) by the terminal relocation and track miles traversed will be reduced by about thirteen miles per train, which will reduce the maintenance of way expense. These items will partially offset the revenue required to provide Skytrain transportation on an Amtrak *Cascades* ticket, as will the fifty cents per passenger income. The full three dollar Skytrain fare represents a two cents per mile Amtrak *Cascades* fare increase in the 2023 Revision A Scott Road scenario.

The 2023 Revision A increased fare scenario represents the 2023 Revision A ridership under the same conditions except for a fare increase of forty-six percent over the 2002 fare. Compared to the 2023 Revision A scenario, revenue increases by twenty percent, expenses decrease by three percent, and the $0.3 million deficit becomes $22.4 million income. Ridership decreases by twenty-two percent as a result of the fare increase. Passenger miles decrease similarly. The conflict between the business mission and the transportation mission of the service is apparent in these results.

**Exhibit 4-1**
**Summary by Train**

## PORTLAND, OR – SEATTLE, WA

| | 2002 | 2008 | 2008 Increase | 2023 | 2023A | 2023A Scott | 2023A Increase |
|---|---|---|---|---|---|---|---|
| Revenue | $1,389,343 | $1,580,229 | $1,750,262 | $2,120,732 | $1,996,342 | $1,997,306 | $2,481,026 |
| Expense | $3,441,273 | $2,426,249 | $2,402,635 | $2,379,538 | $2,594,264 | $2,594,404 | $2,553,708 |
| **Balance** | **($2,051,930)** | **($846,020)** | **($652,373)** | **($258,806)** | **($597,922)** | **($597,097)** | **($72,682)** |
| Passengers | 55,401 | 62,000 | 55,338 | 78,831 | 74,293 | 74,332 | 62,850 |
| (Per Passenger) | ($37.04) | ($13.65) | ($11.79) | ($1.75) | ($2.33) | ($2.87) | ($0.35) |
| Passenger Miles | 16,085,947 | 9,610,490 | 8,606,246 | 12,460,940 | 11,695,687 | 11,701,887 | 9,963,755 |
| Per Passenger Mile | ($0.13) | ($0.09) | ($0.08) | ($0.02) | ($0.05) | ($0.05) | ($0.01) |

## SEATTLE, WA – VANCOUVER, BC

| | 2002 | 2008 | 2008 Increase | 2023 | 2023A | 2023A Scott | 2023A Increase |
|---|---|---|---|---|---|---|---|
| Revenue | $1,837,346 | $1,861,523 | $1,976,245 | $3,389,837 | $3,021,948 | $3,240,225 | $3,686,332 |
| Expense | $3,282,094 | $2,118,745 | $2,063,827 | $2,690,047 | $2,680,023 | $2,725,713 | $2,569,485 |
| Balance | ($1,444,747) | ($257,222) | ($87,582) | $699,790 | $341,925 | $514,512 | $1,116,847 |
| Passengers | 52,298 | 165,333 | 147,567 | 256,200 | 208,020 | 208,130 | 175,980 |
| (Per Passenger) | ($27.63) | ($1.56) | ($0.59) | $2.73 | $1.64 | $2.47 | $6.35 |
| Passenger Miles | 4,648,184 | 3,593,266 | 3,101,559 | 5,095,798 | 5,585,643 | 5,972,102 | 4,669,359 |
| Per Passenger Mile | ($0.31) | ($0.07) | ($0.03) | $0.14 | $0.06 | $0.09 | $0.24 |

**Exhibit 4-2**
**System Summary**

## PORTLAND, OR – SEATTLE, WA

| | 2002 | 2008 | 2008 Increase | 2023 | 2023 Increase | 2023A | 2023A Scott | 2023A Increase |
|---|---|---|---|---|---|---|---|---|
| Revenue | $5,557,372 | $25,283,666 | $28,004,190 | $55,139,041 | $65,750,664 | $55,897,581 | $55,924,579 | $69,468,734 |
| Expense | $13,765,092 | $38,819,981 | $38,442,163 | $61,867,986 | $60,752,255 | $62,047,049 | $62,050,948 | $60,911,471 |
| **Balance** | ($8,207,720) | ($13,536,315) | ($10,437,973) | ($6,728,945) | $4,998,409 | ($6,149,468) | ($6,126,369) | $8,557,263 |
| Passengers | 221,605 | 992,000 | 885,400 | 2,049,600 | 1,734,800 | 2,080,200 | 2,081,300 | 1,759,800 |
| (Per Passenger) | ($37.04) | ($13.65) | ($11.79) | ($16.32) | $2.88 | ($5.70) | ($4.81) | $6.27 |
| Passenger Miles | 64,343,789 | 153,767,841 | 137,699,933 | 323,984,427 | 291,256,000 | 327,479,232 | 327,652,835 | 278,985,145 |
| Per Passenger Mile | ($0.13) | ($0.09) | ($0.08) | ($0.02) | $0.02 | ($0.02) | ($0.02) | $0.03 |

## SEATTLE, WA – VANCOUVER, BC

| | 2002 | 2008 | 2008 Increase | 2023 | 2023 Increase | 2023A | 2023A Scott | 2023A Increase |
|---|---|---|---|---|---|---|---|---|
| Revenue | $3,674,693 | $11,169,139 | $11,857,473 | $27,118,696 | $30,845,322 | $30,219,482 | $32,402,254 | $36,863,324 |
| Expense | $6,564,187 | $12,712,471 | $12,382,962 | $21,520,374 | $20,546,392 | $24,100,265 | $24,557,163 | $22,994,880 |
| Balance | ($2,889,494) | ($1,543,332) | ($525,489) | $5,598,322 | $10,298,930 | $6,119,217 | $7,845,091 | $13,868,443 |
| Passengers | 104,596 | 478,000 | 412,300 | 1,078,900 | 884,700 | 1,272,700 | 1,363,800 | 1,052,300 |
| (Per Passenger) | ($27.63) | ($3.23) | ($1.27) | $5.19 | $11.64 | $4.81 | $5.75 | $13.18 |
| Passenger Miles | 18,592,737 | 57,492,253 | 49,624,949 | 132,490,740 | 110,112,054 | 156,398,017 | 167,218,868 | 130,742,048 |
| Per Passenger Mile | ($0.16) | ($0.03) | ($0.01) | $0.04 | $0.09 | $0.04 | $0.05 | $0.11 |

## COMBINED

| | 2002 | 2008 | 2008 Increase | 2023 | 2023 Increase | 2023A | 2023A Scott | 2023A Increase |
|---|---|---|---|---|---|---|---|---|
| Revenue | $9,232,065 | $36,452,805 | $39,861,663 | $82,257,737 | $96,595,986 | $86,117,063 | $88,326,833 | $106,332,057 |
| Expense | $20,329,279 | $51,532,452 | $50,825,126 | $83,388,360 | $81,298,647 | $86,147,314 | $86,608,111 | $83,906,352 |
| Balance | ($11,097,214) | ($15,079,646) | ($10,963,463) | ($1,130,623) | $15,297,339 | ($30,251) | $1,718,722 | $22,425,706 |
| Passengers | 326,201 | 1,410,100 | 1,246,900 | 2,995,300 | 2,619,500 | 3,203,900 | 3,295,000 | 2,696,900 |
| (Per Passenger) | ($34.02) | ($10.69) | ($8.79) | ($0.38) | $5.84 | ($0.01) | $0.52 | $8.32 |
| Passenger Miles | 82,936,526 | 211,260,094 | 187,324,882 | 456,475,167 | 401,368,054 | 483,877,249 | 494,871,703 | 409,727,193 |
| Per Passenger Mile | ($0.13) | ($0.07) | ($0.06) | ($0.00) | $0.04 | ($0.00) | $0.00 | $0.05 |

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# Chapter Five: Conclusions

The analysis used to develop the operating cost forecasts is based on generally conservative assumptions. In twenty years, the rail industry may see a reduction of train crew personnel from a Conductor and Assistant Conductor to only a Conductor. Technology may reduce the personnel and/or time required to perform functions associated with the Amtrak *Cascades* service. New locomotive technology may greatly reduce fuel consumption for the same amount of tractive effort. No such economies have been assumed.

In addition, this analysis does not assume any additional revenue derived from the Amtrak *Cascades* service, such as lease payments for use of Amtrak right-of-way or buildings, special event trains, and holiday travel. Also not included is the extra fare charged Business Class passengers. Thirteen percent of the current passengers pay twelve dollars for a seat in one of the two Business Class cars in each train. Each Business Class ticket entitles the passenger to a three dollar credit in the Bistro car, offsetting Food and Beverage revenue for those passengers. The remaining nine dollars in Business Class fare for thirteen percent of the riders represents $12.7 million in 2008 (forty-eight percent of the deficit), $27 million in 2003 ($25.8 million income instead of $1.1 million deficit), $28.8 million in 2003 Revision A ($28.8 million income instead of $0.3 million deficit), $29.7 million in 2023 Revision A Scott Road ($29.7 million income instead of $1.7 million income).

**Exhibit 5-1**, on the following page, shows the passengers per day, passengers per train, and Segment Load Factor for the 2008 and 2023 scenarios. These figures present some important information about the projected Amtrak *Cascades* service.

The data suggest future analysis that may lead to further service and revenue improvements in the Amtrak *Cascades* service. The Segment Load Factor of over ninety percent for the Seattle to Bellingham segments of the route in the 2023 scenarios indicates that still more trains over the 2023 Revision A timetable are justified on the Seattle to Vancouver, BC segment. Passengers are not distributed evenly among trains in actual operation. An even distribution of over ninety percent in a segment indicates that some trains will have insufficient capacity and passengers may be turned away. Research may indicate that additional cars in a Talgo trainset will be sufficient additional capacity; however, the additional cars will also be traversing the Portland – Seattle segment of the route on which the Segment Load Factor is much lower.

**Exhibit 5-1**
**Segment Detail: Passengers per Day, Passengers per Train, and Segment Load Factor**

| | Passengers Per Day | | | | Passengers Per Train | | | | Load Factor (313 seats) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2008 | 2023 | 2023A | 2023A Scott Road | 2008 | 2023 | 2023A | 2023A Scott Road | 2008 | 2023 | 2023A | 2023A Scott Road |
| Vancouver, BC to Bellingham | 805 | 1,947 | 2,359 | 2,608 | 101 | 243 | 236 | 261 | 32% | 78% | 75% | 83% |
| Bellingham to Mt Vernon | 1,018 | 2,412 | 2,860 | 3,041 | 127 | 301 | 286 | 304 | 41% | 96% | 91% | 97% |
| Mt Vernon to Everett | 1,106 | 2,537 | 2,973 | 3,138 | 138 | 317 | 297 | 314 | 44% | 101% | 95% | 100% |
| Everett to Edmonds | 1,135 | 2,544 | 2,948 | 3,078 | 142 | 318 | 295 | 308 | 45% | 102% | 94% | 98% |
| Edmonds to Seattle | 1,089 | 2,573 | 2,934 | 3,047 | 136 | 322 | 293 | 305 | 43% | 103% | 94% | 97% |
| Seattle to Tukwila | 2,128 | 4,540 | 4,625 | 4,640 | 82 | 175 | 165 | 166 | 26% | 56% | 53% | 53% |
| Tukwila to Tacoma | 2,089 | 4,336 | 4,376 | 4,379 | 80 | 167 | 156 | 156 | 26% | 53% | 50% | 50% |
| Tacoma to Olympia | 2,431 | 5,079 | 5,142 | 5,143 | 94 | 195 | 184 | 184 | 30% | 62% | 59% | 59% |
| Olympia to Centralia | 2,420 | 5,076 | 5,129 | 5,131 | 93 | 195 | 183 | 183 | 30% | 62% | 59% | 59% |
| Centralia to Kelso | 2,372 | 4,977 | 5,028 | 5,029 | 91 | 191 | 180 | 180 | 29% | 61% | 57% | 57% |
| Kelso to Vancouver, WA | 2,264 | 4,763 | 4,813 | 4,814 | 87 | 183 | 172 | 172 | 28% | 59% | 55% | 55% |
| Vancouver, WA to Portland, OR | 1,934 | 4,089 | 4,128 | 4,129 | 74 | 157 | 147 | 147 | 24% | 50% | 47% | 47% |

Additional length of trainsets may cause track capacity problems at some stations (notably Portland, OR and Vancouver, BC if the existing station will be used). Also, furnishing one additional car per trainset is the equivalent of providing a complete trainset in 2023 (without locomotives). Research into the more efficient use of assets (additional trains or trains with additional cars) will be needed to determine the preferred arrangement.

The additional trains incur no additional infrastructure cost because the infrastructure plan supports bi-hourly service between Seattle and Vancouver. As long as the headway remains at the designed two hours, no additional infrastructure is necessary. Additional schedules will increase expenses, but will probably attract additional riders and generate additional revenue (as demonstrated by the change in ridership in the 2023 Revision A scenario over the 2023 scenario).

The load factor of fifty to sixty percent for the Portland, OR segments allows the margin needed for fluctuations in ridership among trains. Research may indicate that it may be desirable to use additional or innovative marketing and advertising directed at the Portland to Seattle market to constantly fill a portion of the available seats, however.

While nothing can substitute for real data based on real experience, these cost estimates can be used with confidence because they

- cover the costs of all future line items (as known today),
- use reasonable judgments about staffing and maintenance costs,
- are based on a valid operating plan, and
- use reasonable ridership forecast information.

As new information is gathered about each of the expense items, as service increases, and as other changes in operation occur (e.g. change in crew size), these operating cost estimates should be updated and refined.

Finally, the conclusion that the combination of more frequent Amtrak *Cascades* service (which not only drives up revenues but allows for the costs of the fixed physical plant to be distributed over more trains) and more efficient train operations reinforce the conclusion identified in the *1997 Pacific Northwest Rail Corridor Operating Plan*: the Amtrak *Cascades* revenue can match or exceed expenses when train frequencies are increased. The key is managing the growth of the service to the improvement plan, monitoring the current situation against the projections as service changes, and achieving the anticipated efficiencies in operations.

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# Appendices

# Appendix A
# Greater Vancouver, BC Terminal Options

# Appendix A:
# Greater Vancouver, BC Terminal Options

The Pacific Northwest Rail Corridor (PNWRC) program is dependent upon a high degree of passenger train reliability. Ridership depends upon reliable service, as does economy of infrastructure construction. The current Vancouver, BC terminal access arrangement is not acceptable for continued use by Amtrak *Cascades* service.

The Vancouver, BC terminal is not in Washington; however, it is an integral part of the service between Portland and Vancouver, BC. The Washington segment of the corridor cannot be planned in isolation if the program is to be successful. The Washington State Department of Transportation (WSDOT) has conducted some of the planning in Oregon and British Columbia that is necessary to the current level of planning in Washington. This includes consideration of the Vancouver, BC terminal. This Greater Vancouver, BC Terminal planning is based on research performed by the British Columbia Transportation Financing Authority (BCTFA) in 1998.

Previous ridership projections upon which the PNWRC program plans have been based indicate that there will eventually be sufficient market for four Seattle to Vancouver, BC round trips per day with a schedule running time of less than three hours. The current ridership projections indicate that ridership will justify at least five round trips. The ridership projections assume that Pacific Central Station will be the Vancouver, BC terminal of the Amtrak *Cascades* service.

## Alternatives Study

In 1998, the BCTFA explored alternative locations for the Vancouver, BC station. There were several reasons for the study. A significant reason was the great infrastructure expense required to provide a dependable, moderate frequency service. There are two parts of the expense; the Fraser River crossing and the condition of the rail line between the Fraser River and Pacific Central Station.

### Fraser River Bridge

The popularly known constraint is the Fraser River Bridge; owned by the Canada government and operated by Canadian National Railway (CN). It is single track and 2,550 feet long, including 490 feet of frame trestle and 2,060 feet of truss and girder spans. It includes a 380-foot swing span (drawbridge). The bridge was completed in 1904, and is only marginally adequate for modern traffic. The speed limit is fifteen mph for passenger trains and ten

mph for freight trains, but the speed limit for all trains on the swing span is eight mph. In the past twenty-five years, the condition of the bridge has dictated speed limits as low as six mph.

On the Burlington Northern and Santa Fe Railway Company's (BNSF) line, the south approach to the bridge is a 2,202-foot long single track pile trestle that joins the south end of the Fraser River Bridge at a ten mph turnout. The north approach of the bridge is on a combination of grade and timber trestle; 1.2 miles of single track with a twenty mph speed limit. A train crossing the bridge by way of the BNSF route north and either BNSF or CN south will occupy the single track approach and bridge section for about twenty minutes. Thus, the bridge and approach capacity is about three trains per hour.

Currently, a freight train has time to cross the bridge, provided it is not open for marine traffic, if an Amtrak *Cascades* train is just leaving the Vancouver, BC terminal (southward), has just left White Rock (northward). A train that is just short of enough time to cross will be delayed about forty minutes (two-thirds of the bridge capacity for an hour).

Marine traffic occupies a significant part of the capacity of the bridge. There are two elements affecting the amount of time that the bridge is open for marine traffic. The channel is difficult to navigate, requiring opening well in advance of a downstream vessel (the bridge has been struck several times and one span was destroyed in a collision about twenty years ago). Also, swing spans are closed and prepared for rail traffic more slowly than lift or bascule spans.

Ongoing study of the Fraser River crossing has not yet provided an acceptable alternative.

## Capacity North of the Bridge

The Fraser River Bridge is only part of the impediment to reliable passenger using Pacific Central Station. There are three significant capacity and reliability constraints between the Fraser River and Pacific Central Station. Most of the freight traffic, over forty trains per day, is operated by Canadian National. Most trains are 6,000 feet or more in length, many exceed 10,000 tons, and all operate at thirty mph or less. The possible effect of these trains on reliable passenger operation is exacerbated by three significant single track segments with very long transit times.

### Thornton Yard to New Westminster

The length of the single track segment including the Fraser River Bridge is effectively extended by over a mile because of street crossings that must be kept clear. In many cases, a southward CN train cannot enter Thornton Yard until an opposing train leaves, using the single track segment between the yard and the bridge. The northward train can no longer operate twenty minutes

ahead of a passenger train because both tracks would be occupied north of the Fraser River. The required time ahead of the passenger train becomes more than thirty-five minutes. The southward train will be delayed as much as one hour for the passenger train. Marine traffic can increase the delay by over twenty minutes.

The situation is aggravated by the connection to Canadian Pacific (CP) just north of the New Westminster BNSF station (at CP Junction.). This track has a speed limit of ten mph and is on a moderate grade ascending northward. A train entering or leaving the BNSF main tracks at CP Junction. requires as much time in advance of a passenger train as a train crossing the Fraser River. Under the current conditions, northward trains may stall, blocking one of the main tracks for over an hour.

Regardless of capacity calculations, negotiation, or contract requirements, Amtrak *Cascades* trains will be delayed because of these conditions. A railroad will not submit to such extensive delays. This situation is already evident in Oregon. The physical location of the passenger train at the time of the beginning of the delay, as opposed to the clock, is a very powerful force. When a train is stopped at New Westminster for a passenger train that has not yet come on duty in Vancouver, BC or has not left the United States at White Rock, it is easy to be convinced that the freight train has time to go.

A third track is needed north of Braid to accommodate a waiting southward train, leaving one track for a northward train from the Fraser River Bridge or the CP Line, and one track for the passenger train. Also, the second main track must be extended to the north end of the Fraser River Bridge, reducing the amount of single track to the minimum possible amount without constructing a double track bridge. There would be four street crossings in the double track section between Brunette and the bridge. The crossings can be kept clear when a southward train is waiting for a northward train without affecting the effectiveness of the extended double track. The southward train is instructed to begin moving south from the northernmost crossing at a time that will allow it to keep moving at the end of double track as if it had been waiting there for the opposing train.

### Willingdon Junction to North Vancouver

The single track line between Willingdon Junction. and Vancouver is on CN track, not BNSF track, but it has a significant effect on BNSF traffic. The line passes through a tunnel extending from Willingdon Junction to the Second Narrows Bridge (about two miles), crosses a 2,300-foot bridge over the Second Narrows of the Burrard Inlet, and an approach fill of about 1,000 feet before entering the North Shore yard. The single track length is 3.2 miles. The speed limit north of the bridge is fifteen mph, on the bridge twenty mph, and between the bridge and Willingdon Junction. thirty mph. There is a moderate grade ascending from Second Narrows to Willingdon Junction.

The single track running time is about eight minutes, so the longest delay at Willingdon Junction. should be about sixteen minutes. The Second Narrows drawbridge can change that significantly. The Second Narrows Bridge channel can be difficult to navigate. Throughout its history, it has been struck by vessels several times. Much of the marine traffic is ocean vessels that can require a significant amount of time to pass. Rail traffic may be held for an hour, depending upon the vessel and atmospheric conditions. A northward CN train on BNSF may wait at Willingdon Junction. over an hour for an opposing train. The track arrangement is such that a southward train waiting for the single track at the Fraser River Bridge and a northward train waiting for the single track at Willingdon Junction. cause single track operation from south of the Fraser River Bridge to north of Willingdon Junction., about ten miles and about forty minutes running time for a freight train.

Periodically, a northward CN train for the North Shore cannot enter the yard until a specific southward train has left. This situation aggravates the already significant problem. A short term solution has been explored but not implemented; replacing the Douglas Road crossing, 3,000 feet south of Willingdon Junction. with a grade separation. It would allow northward trains to clear the Sperling CTC control point while waiting at Willingdon Junction. This would allow about 1.4 miles of double track operation between Piper and Sperling.

Similar to the Fraser River Bridge situation, regardless of capacity calculations, negotiation, or contract requirements, Amtrak *Cascades* trains will be delayed because of these conditions. A railroad will not submit to such extensive delays beyond the already extensive delays for their own traffic. The same potential for delay caused by perception of distance instead of time also applies in this situation.

The long term solution (more than two Seattle – Vancouver, BC trains) is a third track between Sperling and Willingdon Junction. A northward train for the North Shore can wait while leaving one main track clear for the opposing freight train and one main track clear for a passenger train.

### Still Creek to Vancouver, BC

The line between Still Creek and Vancouver, BC is single track. Between CN Junction. and Pacific Central Station, there is no main tack. The track is within a yard and trains must line switches by hand for their route as necessary. The speed limit in this area is fifteen mph. The entrance to two CN yards is at CN Junction. Trains occupy the main track between Still Creek and CN Junction. as much as forty-five minutes when entering or leaving one of the yards. If a northward Amtrak *Cascades* train has left White Rock, a CN train may not have time to move the 1.3 miles between Still Creek and CN Junction. A freight train can be delayed up to ninety minutes waiting for a passenger train.

The same observation applies to delays on this segment as on the other two; the railroad will not accept such extensive delays and Amtrak *Cascades* trains will be delayed. A second track is required between Still Creek and CN Junction. Reliable operation will also require a CTC or interlocking traffic control system between CN Junction. and Pacific Central Station to eliminate the fifteen mph speed restriction and the need to stop repeatedly to hand throw switches.

### Canadian National

Often, some degree of concession or cooperation is expected from a freight railroad. CN opposed the resumption of passenger trains service with the beginning of the Amtrak *Cascades* service. They have opposed the addition of a second train and have opposed a traffic control system between CN Junction. and Pacific Central Station. A significant amount of negotiation has taken place thus far and CN may have made some concession toward the second train between Seattle and Vancouver. No concession toward maintaining reliable moderate frequency passenger train service can be expected, however. Unlike the other two passenger services on the line, VIA and Rocky Mountaineer Tours, a delay of only a few minutes to a Amtrak *Cascades* train is substantial. A significant delay because of congestion north of the Fraser River can affect service between Vancouver and Portland, and may result in train cancellation hundreds of miles and many hours distant. Reliable service cannot be expected without the infrastructure construction described. The three single track sections described here have the potential for either significant delay to freight trains or to Amtrak *Cascades* trains. The only alternative is construction of the additional tracks that have been described.

### Geological Conditions

The subgrade condition of much of the line between the Fraser River and Pacific Central Station is poor. Between New Westminster and Willingdon Junction., the line passes along the Brunette River, Burnaby Lake, and Still Creek, through a park and conservation area and across wetlands and areas of poor soil conditions. New track must be constructed in these areas. The speed limit on tangent track between the Fraser River and Pacific Central Station is fifty mph because of these conditions. The subgrade problem is exacerbated by the high axle loading (as much as thirty-six tons per axle), of most of the freight trains on the line. Regardless of trackage constructed to accommodate delayed freight trains, the speed limits and running time between the Fraser River and Pacific Central Station will remain generally as they are now.

### Other Factors

The population of Vancouver, BC is approximately 560,000 (1999). Pacific Central Station is located in the northwest section of the city. Amtrak *Cascades* trains enter the city in the southeast portion and pass through much of the populated area of Vancouver, BC before reaching the station.

The population of Greater Vancouver, BC is approximately two million. Of the population of the Greater Vancouver Regional District living outside of Vancouver, BC, approximately 580,000 are located in Burnaby, New Westminster, and Surrey. A significant number of this population is served by Skytrain. Another 163,000 people live in Coquitlam and Port Coquitlam, just north of New Westminster. Each of these municipalities also has a large business district. Intercity rail service often makes suburban stops near large cities. Amtrak *Cascades* service does not have a suburban Vancouver, BC stop because of the Customs and Immigration processing in the Vancouver, BC station. For the population of the area south and east of the Vancouver, BC business district, the time spent traveling the wrong direction to the station in Vancouver, BC from can be more effectively used to drive south instead.

The rail service passes by these municipalities because the Customs and Immigration inspections occur after the train has passed them when arriving and before the train has passed them when leaving. Customs and Immigration inspection at the Vancouver, BC terminal station is important to the service. The previous service was terminated partially because of the exceedingly long time taken by customs and immigration inspection at the border. At the terminal, a person being detained for any reason does not delay the entire train, as is the case at an intermediate border station. Thus, a Scott Road station cannot be an intermediate station.

## Greater Vancouver, BC Terminal (Scott Road)

Among the alternatives explored by BCTFA is a terminal station at the Scott Road Skytrain station on the south bank of the Fraser River.

The use of Scott Road as a Greater Vancouver, BC Terminal is not accepted by all involved parties. The most common reason for opposition to Scott Road as the Greater Vancouver terminal is that ridership is adversely affected by mode change. A common opinion is that if the terminal is not “in Vancouver” will have a dramatic negative effect on ridership. A second objection is that the Scott Road terminal location will cause unusual traffic conditions and additional vehicle trips on the local streets.

Presently, no ridership study has tested the theory. A ridership study that makes an effective assessment must consider what a passenger does at Pacific Central Station after arriving, and the details of the proposed arrangement. The current station is not located at a destination for a significant amount of travel. It is located about 1.2 miles from the center of the downtown business district and one or more miles from the various cruise ship terminals. A mode change to private auto, taxi, bus, or Skytrain is required upon arriving at the station. Acquisition of a rental car requires a mode change for travel to the downtown business district as well.

The running time of Skytrain between Scott Road and the current Vancouver, BC passenger station is about two minutes longer than the expected running time for Amtrak *Cascades* trains. Skytrain, however, makes eleven stops in eastern Vancouver, Burnaby, and New Westminster, serving two business/commercial areas and a regional population of over 250,000 before reaching the Vancouver passenger station. Beyond the Vancouver, BC passenger station, Skytrain has four stops in the Vancouver, BC downtown business district.

In the opposite direction, Skytrain has three stops in the Surrey business district, all within seven minutes of the Scott Road station, in close proximity to some of the most densely populated area of northern Surrey and a large business district. Avoiding increased street traffic is an important reason for choosing the Scott Road location. The additional population that will be served has access to a fast reliable transit system that makes driving a poor choice.

The *Cascade Gateway Rail Study* published by Whatcom Council of Governments (December 20 2002) describes the scenario and consequences that are commonly envisioned. It recommends a circuitous low speed route of three times the direct distance between the BNSF line and the station location. The station is a separate facility, about five hundred feet form the Skytrain transit station. The Amtrak *Cascades* Scott Road station is effectively offered in the study as the destination of travel into Canada and the origin of travel leaving Canada. The opinion in the study is that a terminal station will dramatically reduce ridership. The opinion is probably correct, given the situation introduced by the study.

A terminal at Scott Road is not as simple as building a track to the vicinity of the Skytrain station and building a platform and Customs facility. To function as desired, the Scott Road terminal must have an unusual mode change; as transparent as possible to passengers:

- Skytrain loop or wye and separate station dedicated to Amtrak *Cascades* Skytrain service;
- Amtrak *Cascades* and Skytrain services use the same platform or adjacent platforms for cross-platform transfer;
- Customs processing on the platform between the trains or between platforms;
- Dedicated Skytrain equipment in a Amtrak *Cascades*-service-like color scheme, equipped consistent with the needs of Amtrak *Cascades* service passengers (such as more comfortable seating, space for luggage, and signage specifically for people not familiar with the area);
- Several Skytrain vehicles are required to accommodate the passengers from one Talgo train. Thus, passengers need not wait long for a departure after leaving the customs facility;
- An attendant (perhaps Amtrak *Cascades* crewmembers traveling between the Scott Road terminal and a crew facility at Pacific Central Station) may be stationed in each of the Skytrain vehicles assigned to Amtrak *Cascades* service to assist passengers and provide information;
- Pacific Central Station performs its current function. The only difference is that the Amtrak *Cascades* trains arrive and leave on the Skytrain tracks. An enclosed passageway between the Skytrain platform and Pacific Central Station facilitates passenger transfers;
- Integrated Amtrak *Cascades*/Skytrain fare;
- Integrated Amtrak *Cascades*/Skytrain scheduling with published Amtrak *Cascades* times along the Skytrain route; and
- The terminal station must be named for Vancouver in some way (Greater Vancouver Terminal), not for the local area of the station (Scott Road or Surrey).

The planning work associated with the Amtrak *Cascades* operating plan update used the above assumptions for a single ridership study, and found that ridership increased by seven percent.

Full implementation of the Amtrak *Cascades* service using the current Vancouver, BC station has some apparently significant disadvantages.

The cost of the Skytrain connection would likely be less than the cost of the infrastructure improvement needed for frequent passenger train service into Vancouver on the BNSF route. The cost would be about seventy-five million U.S. dollars including the track connections and station facility. This amount is less than half the amount required to extend the full Amtrak *Cascades* service to the current Vancouver passenger station (or approximately the same if the cost of the Fraser River Crossing is not considered a passenger service cost). An additional amount may be necessary for vehicles, but the full cost will remain less than the cost (including the cost of a new Fraser River Crossing) of using Pacific Central Station for the full implementation of Amtrak *Cascades* service.

## Effect on Operation

The timetable, crew plan, and equipment plan are the same whether the terminal is at Scott Road or Pacific Central Station. The operating plan is the same for either terminal.

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# Appendix B: Ridership Summary Data

# Appendix B: Summary Data

## Train Breakouts

### Base- Amtrak Fiscal Year 2002 Actual

| | | Actual | | | | | Annual |
|---|---|---|---|---|---|---|---|
| Train # | Direction | Rank | Riders | Revenue | End Markets | End Times | Train Miles |
| 751 | SB | 5 | 40,132 | $909,749 | SEA-PDX | 0730-1100 | 67,890 |
| 11 | SB | 3 | 57,802 | $1,358,427 | SEA-EUG | 0945-1700 | 113,150 |
| 761 | SB | 9 | 25,879 | $343,432 | BEL-SEA | 1020-1245 | 35,770 |
| 753 | SB | 1 | 80,221 | $1,950,714 | SEA-EUG | 1345-2005 | 113,150 |
| 755 | SB | 2 | 72,151 | $1,727,119 | SEA-EUG | 1725-2235 | 113,150 |
| 763 | SB | 4 | 49,304 | $1,170,314 | VAC-SEA | 1800-2155 | 56,940 |
| 750 | NB | 1 | 80,158 | $1,922,223 | EUG-SEA | 0545-1215 | 113,150 |
| 760 | NB | 3 | 55,292 | $1,296,571 | SEA-VAC | 0745-1140 | 56,940 |
| 552 | NB | 5 | 27,195 | $375,388 | EUG-PDX | 0930-2025 | 45,260 |
| 752 | NB | 2 | 72,748 | $1,688,038 | PDX-SEA | 1230-1600 | 67,890 |
| 14 | NB | 7 | 21,616 | $537,758 | EUG-SEA | 1244-1740 | 113,150 |
| 762 | NB | 6 | 22,350 | $299,466 | SEA-BEL | 1730-2000 | 35,770 |
| 754 | NB | 4 | 54,216 | $1,320,737 | PDX-SEA | 1815-2145 | 67,890 |
| | | TOTAL: | 659,064 | $14,899,935 | | | |

## 2008 Build Estimate

| | | Actual | | | | | Annual |
|---|---|---|---|---|---|---|---|
| Train # | Direction | Rank | Riders | Revenue | End Markets | End Times | Train Miles |
| 117 | SB | 6 | 54,743 | $1,211,391 | VAC-SEA | 1810-2135 | 56,940 |
| 115 | SB | 9 | 31,786 | $752,193 | SEA-PDX | 1940-2240 | 67,890 |
| 111 | SB | 8 | 48,088 | $1,102,561 | SEA-EUG | 1820-0005 | 113,150 |
| 113 | SB | 1 | 171,258 | $3,930,440 | VAC-PDX | 1225-1905 | 124,830 |
| 109 | SB | 3 | 90,659 | $2,071,656 | SEA-EUG | 1410-2000 | 113,150 |
| 107 | SB | 2 | 152,188 | $3,508,349 | VAC-PDX | 0730-1410 | 124,830 |
| 11 | SB | 10 | 26,737 | $592,394 | SEA-EUG | 0955-1646 | 113,150 |
| 105 | SB | 5 | 56,116 | $1,365,499 | SEA-PDX | 0950-1250 | 67,890 |
| 103 | SB | 4 | 59,640 | $1,373,734 | SEA-PDX | 0805-1105 | 67,890 |
| 101 | SB | 7 | 52,860 | $1,231,844 | SEA-PDX | 0630-0930 | 67,890 |
| 102 | NB | 3 | 76,652 | $1,619,938 | SEA-VAC | 0745-1110 | 56,940 |
| 104 | NB | 7 | 57,904 | $1,311,907 | PDX-SEA | 0630-0930 | 67,890 |
| 106 | NB | 4 | 75,014 | $1,698,471 | EUG-SEA | 0545-1140 | 113,150 |
| 108 | NB | 1 | 150,024 | $3,549,730 | PDX-VAC | 1025-1705 | 124,830 |
| 552 | NB | 11 | 13,519 | $181,085 | EUG-PDX | 0930-1205 | 45,260 |
| 110 | NB | 6 | 58,154 | $1,453,207 | PDX-SEA | 1210-1510 | 67,890 |
| 112 | NB | 2 | 146,460 | $3,404,187 | PDX-VAC | 1435-2115 | 124,830 |
| 114 | NB | 5 | 69,796 | $1,647,832 | PDX-SEA | 1555-1855 | 67,890 |
| 14 | NB | 10 | 26,726 | $620,029 | EUG-SEA | 1244-1956 | 113,150 |
| 116 | NB | 8 | 37,869 | $898,574 | PDX-SEA | 1815-2115 | 67,890 |
| 118 | NB | 9 | 31,958 | $755,103 | PDX-SEA | 1945-2245 | 67,890 |
| | | TOTAL: | 1,488,150 | $34,280,123 | | | |

## 2023 Build Estimate

| | | Actual | | | | | Annual |
|---|---|---|---|---|---|---|---|
| Train # | Direction | Rank | Riders | Revenue | End Markets | End Times | Train Miles |
| 101 | SB | 7 | 75,482 | $1,788,860 | SEA-PDX | 0605-0832 | 67,890 |
| 103 | SB | 5 | 90,215 | $2,082,224 | SEA-PDX | 0805-1032 | 67,890 |
| 105 | SB | 9 | 65,311 | $1,554,482 | SEA-PDX | 0905-1132 | 67,890 |
| 107 | SB | 12 | 59,841 | $1,450,381 | SEA-PDX | 1005-1232 | 67,890 |
| 109 | SB | 1 | 297,424 | $7,062,806 | VAC-EUG | 0805-1530 | 170,090 |
| 111 | SB | 11 | 64,834 | $1,556,359 | SEA-PDX | 1205-1432 | 67,890 |
| 113 | SB | 4 | 156,727 | $3,586,186 | SEA-EUG | 1405-1830 | 113,150 |
| 115 | SB | 3 | 215,632 | $5,025,205 | VAC-PDX | 1205-1732 | 124,830 |
| 117 | SB | 6 | 88,810 | $2,105,711 | SEA-PDX | 1605-1832 | 67,890 |
| 119 | SB | 8 | 75,267 | $1,776,719 | SEA-PDX | 1705-1932 | 67,890 |
| 121 | SB | 13 | 46,074 | $1,082,772 | SEA-PDX | 1805-2032 | 67,890 |
| 123 | SB | 2 | 250,766 | $5,732,692 | VAC-EUG | 1605-2320 | 170,090 |
| 125 | SB | 14 | 44,171 | $1,046,396 | SEA-PDX | 2000-2227 | 67,890 |
| 127 | SB | 10 | 65,181 | $1,433,380 | VAC-SEA | 2005-2250 | 56,940 |
| 102 | NB | 5 | 114,736 | $2,443,503 | SEA-VAC | 0640-0925 | 56,940 |
| 104 | NB | 11 | 57,954 | $1,347,532 | PDX-SEA | 0600-0827 | 67,890 |
| 106 | NB | 8 | 72,748 | $1,676,299 | PDX-SEA | 0700-0927 | 67,890 |
| 108 | NB | 3 | 213,484 | $4,946,053 | PDX-VAC | 0800-1335 | 124,830 |
| 110 | NB | 4 | 130,167 | $2,907,188 | EUG-SEA | 0705-1127 | 113,150 |
| 112 | NB | 10 | 69,652 | $1,690,618 | PDX-SEA | 1000-1227 | 67,890 |
| 114 | NB | 1 | 302,565 | $7,250,123 | EUG-VAC | 1005-1735 | 170,090 |
| 116 | NB | 9 | 69,803 | $1,659,046 | PDX-SEA | 1400-1627 | 67,890 |
| 118 | NB | 2 | 269,735 | $6,343,101 | EUG-VAC | 1305-2035 | 170,090 |
| 120 | NB | 6 | 88,500 | $2,102,525 | PDX-SEA | 1600-1827 | 67,890 |
| 122 | NB | 7 | 78,089 | $1,866,970 | PDX-SEA | 1700-1927 | 67,890 |
| 124 | NB | 12 | 47,507 | $1,129,514 | PDX-SEA | 1800-2027 | 67,890 |
| 126 | NB | 14 | 36,021 | $858,696 | PDX-SEA | 1900-2127 | 67,890 |
| 128 | NB | 13 | 44,772 | $1,063,005 | PDX-SEA | 2000-2227 | 67,890 |
| | | TOTAL: | 3,191,468 | $74,568,346 | | | |

## 2023 Revision A Estimate

| | | Actual | | | | | Annual |
|---|---|---|---|---|---|---|---|
| Train # | Direction | Rank | Riders | Revenue | End Markets | End Times | Train Miles |
| 101 | SB | 12 | 61,341 | $1,439,543 | SEA-PDX | 0606-0836 | 67,890 |
| 103 | SB | 7 | 70,836 | $1,618,035 | SEA-PDX | 0707-0837 | 67,890 |
| 105 | SB | 8 | 70,366 | $1,607,806 | SEA-PDX | 0806-1036 | 67,890 |
| 107 | SB | 11 | 62,131 | $1,468,766 | SEA-PDX | 0906-1136 | 67,890 |
| 109 | SB | 13 | 58,362 | $1,401,531 | SEA-PDX | 1006-1236 | 67,890 |
| 111 | SB | 1 | 293,915 | $6,894,700 | VAC-EUG | 0814-1530 | 170,090 |
| 113 | SB | 10 | 62,203 | $1,478,826 | SEA-PDX | 1206-1436 | 67,890 |
| 115 | SB | 5 | 153,287 | $3,467,944 | SEA-EUG | 1406-1830 | 113,150 |
| 117 | SB | 4 | 197,422 | $4,558,970 | VAC-SEA | 1214-1736 | 56,940 |
| 119 | SB | 6 | 84,983 | $1,992,682 | SEA-PDX | 1606-1836 | 67,890 |
| 121 | SB | 3 | 200,082 | $4,504,081 | VAC-SEA | 1414-1936 | 56,940 |
| 123 | SB | 14 | 42,997 | $1,000,146 | SEA-PDX | 1806-2036 | 67,890 |
| 125 | SB | 2 | 234,115 | $5,306,738 | VAC-EUG | 1614-2330 | 170,090 |
| 127 | SB | 15 | 42,228 | $989,073 | SEA-PDX | 2006-2236 | 67,890 |
| 129 | SB | 9 | 64,626 | $1,404,685 | VAC-SEA | 2014-2250 | 56,940 |
| 102 | NB | 6 | 104,552 | $2,201,589 | SEA-VAC | 0645-0922 | 56,940 |
| 104 | NB | 4 | 174,436 | $3,856,821 | PDX-VAC | 0600-1122 | 124,830 |
| 106 | NB | 10 | 70,316 | $1,599,070 | PDX-SEA | 0700-0930 | 67,890 |
| 108 | NB | 3 | 191,601 | $4,405,311 | PDX-VAC | 0800-1322 | 124,830 |
| 110 | NB | 5 | 130,259 | $2,870,467 | EUG-SEA | 0705-1130 | 113,150 |
| 112 | NB | 12 | 57,312 | $1,375,006 | PDX-SEA | 1000-1230 | 67,890 |
| 114 | NB | 11 | 58,427 | $1,397,674 | PDX-SEA | 1100-1330 | 67,890 |
| 116 | NB | 2 | 268,709 | $6,392,115 | EUG-VAC | 1005-1722 | 170,090 |
| 118 | NB | 1 | 284,536 | $6,594,795 | EUG-VAC | 1205-1922 | 170,090 |
| 120 | NB | 8 | 76,319 | $1,803,493 | PDX-SEA | 1500-1730 | 67,890 |
| 122 | NB | 7 | 84,717 | $1,987,330 | PDX-SEA | 1600-1830 | 67,890 |
| 124 | NB | 9 | 74,575 | $1,759,367 | PDX-SEA | 1700-1930 | 67,890 |
| 126 | NB | 13 | 45,565 | $1,069,182 | PDX-SEA | 1800-2030 | 67,890 |
| 128 | NB | 15 | 34,665 | $815,876 | PDX-SEA | 1900-2130 | 67,890 |
| 130 | NB | 14 | 42,906 | $1,005,429 | PDX-SEA | 2000-2230 | 67,890 |
| | | TOTAL: | 3,397,787 | $78,267,050 | | | |

## 2023 Revision A Estimate- Scott Road

| | | Actual | | | | | Annual |
|---|---|---|---|---|---|---|---|
| Train # | Direction | Rank | Riders | Revenue | End Markets | End Times | Train Miles |
| 101 | SB | 12 | 61,341 | $1,453,770 | SEA-PDX | 0606-0836 | 67,890 |
| 103 | SB | 7 | 70,836 | $1,634,027 | SEA-PDX | 0707-0837 | 67,890 |
| 105 | SB | 8 | 70,366 | $1,623,696 | SEA-PDX | 0806-1036 | 67,890 |
| 107 | SB | 11 | 62,131 | $1,483,282 | SEA-PDX | 0906-1136 | 67,890 |
| 109 | SB | 13 | 58,362 | $1,415,383 | SEA-PDX | 1006-1236 | 67,890 |
| 111 | SB | 1 | 309,312 | $7,288,681 | SCT-EUG | 0834-1530 | 162,790 |
| 113 | SB | 10 | 62,203 | $1,493,441 | SEA-PDX | 1206-1436 | 67,890 |
| 115 | SB | 5 | 153,287 | $3,502,218 | SEA-EUG | 1406-1830 | 113,150 |
| 117 | SB | 4 | 199,451 | $4,633,522 | SCT-SEA | 1234-1736 | 49,640 |
| 119 | SB | 6 | 84,983 | $2,012,376 | SEA-PDX | 1606-1836 | 67,890 |
| 121 | SB | 3 | 209,800 | $4,767,661 | SCT-SEA | 1434-1936 | 49,640 |
| 123 | SB | 14 | 42,997 | $1,010,031 | SEA-PDX | 1806-2036 | 67,890 |
| 125 | SB | 2 | 247,861 | $5,659,924 | SCT-EUG | 1634-2330 | 162,790 |
| 127 | SB | 15 | 42,228 | $998,848 | SEA-PDX | 2006-2236 | 67,890 |
| 129 | SB | 9 | 69,278 | $1,515,772 | SCT-SEA | 2034-2250 | 49,640 |
| 102 | NB | 6 | 122,086 | $2,597,886 | SEA-SCT | 0645-0857 | 49,640 |
| 104 | NB | 4 | 179,423 | $3,999,128 | PDX-SCT | 0600-1057 | 117,530 |
| 106 | NB | 10 | 70,316 | $1,614,874 | PDX-SEA | 0700-0930 | 67,890 |
| 108 | NB | 3 | 195,043 | $4,514,365 | PDX-SCT | 0800-1257 | 117,530 |
| 110 | NB | 5 | 130,259 | $2,898,836 | EUG-SEA | 0705-1130 | 113,150 |
| 112 | NB | 12 | 57,312 | $1,388,596 | PDX-SEA | 1000-1230 | 67,890 |
| 114 | NB | 11 | 58,427 | $1,411,487 | PDX-SEA | 1100-1330 | 67,890 |
| 116 | NB | 2 | 270,349 | $6,462,811 | EUG-SCT | 1005-1657 | 162,790 |
| 118 | NB | 1 | 302,473 | $7,080,549 | EUG-SCT | 1205-1857 | 162,790 |
| 120 | NB | 8 | 76,319 | $1,821,317 | PDX-SEA | 1500-1730 | 67,890 |
| 122 | NB | 7 | 84,717 | $2,006,971 | PDX-SEA | 1600-1830 | 67,890 |
| 124 | NB | 9 | 74,575 | $1,776,755 | PDX-SEA | 1700-1930 | 67,890 |
| 126 | NB | 13 | 45,565 | $1,079,749 | PDX-SEA | 1800-2030 | 67,890 |
| 128 | NB | 15 | 34,665 | $823,939 | PDX-SEA | 1900-2130 | 67,890 |
| 130 | NB | 14 | 42,906 | $1,015,366 | PDX-SEA | 2000-2230 | 67,890 |
| | | TOTAL: | 3,488,871 | $80,985,262 | | | |

## 2008 Build Estimate- Sensitivity Analysis (increased base fares by 23%)

| | | Actual | | | | | Annual |
|---|---|---|---|---|---|---|---|
| Train # | Direction | Rank | Riders | Revenue | End Markets | End Times | Train Miles |
| 117 | SB | 6 | 47,263 | $1,304,929 | VAC-SEA | 1810-2135 | 56,940 |
| 115 | SB | 9 | 28,503 | $826,241 | SEA-PDX | 1940-2240 | 67,890 |
| 111 | SB | 8 | 42,988 | $1,208,738 | SEA-EUG | 1820-0005 | 113,150 |
| 113 | SB | 1 | 150,416 | $4,270,974 | VAC-PDX | 1225-1905 | 124,830 |
| 109 | SB | 3 | 81,028 | $2,271,031 | SEA-EUG | 1410-2000 | 113,150 |
| 107 | SB | 2 | 133,307 | $3,807,694 | VAC-PDX | 0730-1410 | 124,830 |
| *11* | *SB* | *10* | *23,627* | *$644,828* | *SEA-EUG* | *0955-1646* | *113,150* |
| 105 | SB | 5 | 50,423 | $1,501,152 | SEA-PDX | 0950-1250 | 67,890 |
| 103 | SB | 4 | 53,429 | $1,508,330 | SEA-PDX | 0805-1105 | 67,890 |
| 101 | SB | 7 | 47,273 | $1,351,667 | SEA-PDX | 0630-0930 | 67,890 |
| 102 | NB | 3 | 66,378 | $1,746,411 | SEA-VAC | 0745-1110 | 56,940 |
| 104 | NB | 7 | 51,809 | $1,439,668 | PDX-SEA | 0630-0930 | 67,890 |
| 106 | NB | 4 | 67,146 | $1,863,683 | EUG-SEA | 0545-1140 | 113,150 |
| 108 | NB | 1 | 131,275 | $3,851,621 | PDX-VAC | 1025-1705 | 124,830 |
| 552 | NB | 11 | 11,984 | $197,274 | EUG-PDX | 0930-1205 | 45,260 |
| 110 | NB | 6 | 52,110 | $1,595,015 | PDX-SEA | 1210-1510 | 67,890 |
| 112 | NB | 2 | 128,870 | $3,702,177 | PDX-VAC | 1435-2115 | 124,830 |
| 114 | NB | 5 | 62,527 | $1,809,337 | PDX-SEA | 1555-1855 | 67,890 |
| *14* | *NB* | *10* | *23,574* | *$674,259* | *EUG-SEA* | *1244-1956* | *113,150* |
| 116 | NB | 8 | 33,937 | $986,816 | PDX-SEA | 1815-2115 | 67,890 |
| 118 | NB | 9 | 28,647 | $829,322 | PDX-SEA | 1945-2245 | 67,890 |
| | | TOTAL: | 1,316,517 | $37,391,168 | | | |

## 2023 Revision A Estimate- Sensitivity Analysis (increased base fares by 46%)

| | | Actual | | | | | Annual |
|---|---|---|---|---|---|---|---|
| Train # | Direction | Rank | Riders | Revenue | End Markets | End Times | Train Miles |
| 101 | SB | 12 | 52,280 | $1,807,682 | SEA-PDX | 0606-0836 | 67,890 |
| 103 | SB | 7 | 60,253 | $2,029,979 | SEA-PDX | 0707-0837 | 67,890 |
| 105 | SB | 8 | 60,018 | $2,019,268 | SEA-PDX | 0806-1036 | 67,890 |
| 107 | SB | 11 | 53,257 | $1,848,420 | SEA-PDX | 0906-1136 | 67,890 |
| 109 | SB | 13 | 50,034 | $1,763,922 | SEA-PDX | 1006-1236 | 67,890 |
| 111 | SB | 1 | 243,780 | $8,539,199 | VAC-EUG | 0814-1530 | 170,090 |
| 113 | SB | 10 | 53,270 | $1,860,435 | SEA-PDX | 1206-1436 | 67,890 |
| 115 | SB | 5 | 128,929 | $4,321,886 | SEA-EUG | 1406-1830 | 113,150 |
| 117 | SB | 4 | 165,797 | $5,684,350 | VAC-SEA | 1214-1736 | 56,940 |
| 119 | SB | 6 | 72,552 | $2,503,641 | SEA-PDX | 1606-1836 | 67,890 |
| 121 | SB | 3 | 167,818 | $5,612,790 | VAC-SEA | 1414-1936 | 56,940 |
| 123 | SB | 14 | 36,756 | $1,257,238 | SEA-PDX | 1806-2036 | 67,890 |
| 125 | SB | 2 | 194,671 | $6,583,255 | VAC-EUG | 1614-2330 | 170,090 |
| 127 | SB | 15 | 36,075 | $1,243,043 | SEA-PDX | 2006-2236 | 67,890 |
| 129 | SB | 9 | 53,878 | $1,747,568 | VAC-SEA | 2014-2250 | 56,940 |
| 102 | NB | 6 | 86,308 | $2,729,616 | SEA-VAC | 0645-0922 | 56,940 |
| 104 | NB | 4 | 146,355 | $4,806,818 | PDX-VAC | 0600-1122 | 124,830 |
| 106 | NB | 10 | 59,898 | $2,007,317 | PDX-SEA | 0700-0930 | 67,890 |
| 108 | NB | 3 | 160,341 | $5,483,763 | PDX-VAC | 0800-1322 | 124,830 |
| 110 | NB | 5 | 109,757 | $3,580,676 | EUG-SEA | 0705-1130 | 113,150 |
| 112 | NB | 12 | 49,142 | $1,730,603 | PDX-SEA | 1000-1230 | 67,890 |
| 114 | NB | 11 | 50,056 | $1,758,527 | PDX-SEA | 1100-1330 | 67,890 |
| 116 | NB | 2 | 223,656 | $7,930,229 | EUG-VAC | 1005-1722 | 170,090 |
| 118 | NB | 1 | 237,228 | $8,184,621 | EUG-VAC | 1205-1922 | 170,090 |
| 120 | NB | 8 | 65,354 | $2,268,712 | PDX-SEA | 1500-1730 | 67,890 |
| 122 | NB | 7 | 72,395 | $2,497,976 | PDX-SEA | 1600-1830 | 67,890 |
| 124 | NB | 9 | 63,678 | $2,210,827 | PDX-SEA | 1700-1930 | 67,890 |
| 126 | NB | 13 | 38,905 | $1,343,543 | PDX-SEA | 1800-2030 | 67,890 |
| 128 | NB | 15 | 29,631 | $1,025,664 | PDX-SEA | 1900-2130 | 67,890 |
| 130 | NB | 14 | 36,666 | $1,263,781 | PDX-SEA | 2000-2230 | 67,890 |
| | | TOTAL: | 2,858,737 | $97,645,348 | | | |

## Input and Results Summary

| | | | | | | FARE SENSITIVITY ANALYSIS | |
|---|---|---|---|---|---|---|---|
| | 2002 | 2008 | 2023 | 2023 | 2023 | 2008 | 2023 |
| **Frequency (Round Trip / Day)** | Base | Build | Build | Rev A | Rev A- Scott Rd | Build (23% Fare Inc) | Rev A (46% Fare Inc) |
| Vancouver BC - Seattle | 1 | 3 | 4 | 5 | 5 | 3 | 5 |
| Vancouver BC – Portland, OR | 0 | 2 | 3 | 4 | 4 | 2 | 4 |
| Seattle – Portland, OR[1] | 4 | 9 | 13 | 14 | 14 | 9 | 14 |
| Travel Time | | | | | | | |
| Vancouver BC - Seattle | 235 | 205 | 165 | 156 | 136 | 205 | 156 |
| Vancouver BC – Portland, OR | N/A | 400 | 331 | 322 | 302 | 400 | 322 |
| Seattle – Portland, OR | 222 | 195 | 147 | 150 | 150 | 195 | 150 |
| Fare | | | | | | | |
| Vancouver BC - Seattle | $26.37 | $26.37 | $26.37 | $26.37 | $26.37 | $32.45 | $38.54 |
| Vancouver BC – Portland, OR | N/A | $43.98 | $43.98 | $43.98 | $43.98 | $54.13 | $64.28 |
| Seattle – Portland, OR | $27.67 | $27.67 | $27.67 | $27.67 | $27.67 | $34.05 | $40.44 |
| Ridership | | | | | | | |
| Vancouver BC - Seattle | 76,700 | 241,800 | 559,700 | 662,800 | 709,500 | 208,900 | 567,600 |
| Vancouver BC – Portland, OR | - | 1,500 | 3,900 | 4,500 | 5,000 | 1,200 | 3,400 |
| Seattle – Portland, OR | 240,500 | 556,700 | 1,102,400 | 1,106,100 | 1,106,100 | 505,200 | 965,200 |
| Other Non Oregon Trips | 215,200 | 548,700 | 1,125,200 | 1,229,500 | 1,273,400 | 478,100 | 996,600 |
| Other Trips to Central Oregon | 129,500 | 139,600 | 400,400 | 395,000 | 395,000 | 123,100 | 325,800 |
| **Total** | **661,900** | **1,488,100** | **3,191,500** | **3,397,800** | **3,488,900** | **1,316,500** | **2,858,700** |
| Revenue (02$) | | | | | | | |
| Vancouver BC - Seattle | $1,995,000 | $6,270,000 | $14,482,000 | $17,150,000 | $18,358,000 | $6,670,000 | $21,465,000 |
| Vancouver BC – Portland, OR | $0 | $64,000 | $170,000 | $199,000 | $217,000 | $65,000 | $219,000 |
| Seattle – Portland, OR | $6,576,000 | $15,222,000 | $30,158,000 | $30,260,000 | $30,260,000 | $17,001,000 | $38,591,000 |
| Other Non Oregon Trips | $3,614,000 | $9,572,000 | $20,029,000 | $21,870,000 | $22,564,000 | $10,239,000 | $25,839,000 |
| Other Trips to Central Oregon | $2,845,000 | $3,152,000 | $9,729,000 | $9,586,000 | $9,587,000 | $3,414,000 | $11,529,000 |
| **Total** | **$15,031,000** | **$34,280,000** | **$74,568,000** | **$79,064,000** | **$80,985,000** | **$37,391,000** | **$97,645,000** |

Seattle Area - EDM, SEA, TUK  Portland Area - VAN, PDX  Central Oregon - SLM, ALY, EUG

[1]*Includes the Coast Starlight except for the 2023 scenario where the CS is assumed to provide no corridor service and is replaced by a faster Amtrak Cascades train.*

## Market Summary

| | | FY 2002 Actual (Unlinked Trips) | | | FY 02 Estimated (Linked Trips) | | | FY 08 Build Estimate (Linked Trips) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| Vancouver, BC | NW Washington | 18,500 | 1,765,000 | $322,000 | 17,800 | 1,695,000 | $310,000 | 49,000 | 4,638,000 | $850,000 |
| Vancouver, BC | Seattle | 76,000 | 11,646,000 | $1,978,000 | 76,700 | 11,746,000 | $1,995,000 | 241,800 | 37,308,000 | $6,270,000 |
| Vancouver, BC | SW Washington | 0 | 0 | $0 | 0 | 0 | $0 | 1,400 | 289,000 | $40,000 |
| Vancouver, BC | Portland, OR | 0 | 0 | $0 | 0 | 0 | $0 | 1,500 | 494,000 | $64,000 |
| Vancouver, BC | Central Oregon | 0 | 0 | $9 | 0 | 0 | $0 | 200 | 77,000 | $10,000 |
| NW Washington | NW Washington | 1,900 | 99,000 | $21,000 | 1,800 | 97,000 | $20,000 | 3,800 | 202,000 | $43,000 |
| NW Washington | Seattle | 53,700 | 4,582,000 | $771,000 | 52,900 | 4,500,000 | $757,000 | 123,500 | 10,810,000 | $1,807,000 |
| NW Washington | SW Washington | 0 | 0 | $0 | 2,900 | 382,000 | $57,000 | 34,000 | 4,319,000 | $655,000 |
| NW Washington | Portland, OR | 0 | 0 | $0 | 2,800 | 679,000 | $91,000 | 19,900 | 4,755,000 | $639,000 |
| NW Washington | Central Oregon | 0 | 0 | $0 | 1,400 | 446,000 | $58,000 | 2,900 | 947,000 | $122,000 |
| Seattle | Seattle | 2,800 | 50,000 | $18,000 | 2,900 | 51,000 | $18,000 | 5,500 | 116,000 | $37,000 |
| Seattle | SW Washington | 39,200 | 3,496,000 | $595,000 | 38,100 | 3,406,000 | $580,000 | 104,400 | 9,646,000 | $1,620,000 |
| Seattle | Portland, OR | 243,400 | 44,830,000 | $6,654,000 | 240,500 | 44,302,000 | $6,576,000 | 556,700 | 102,758,000 | $15,222,000 |
| Seattle | Central Oregon | 40,200 | 11,127,000 | $1,415,000 | 41,200 | 11,402,000 | $1,450,000 | 46,500 | 12,906,000 | $1,643,000 |
| SW Washington | SW Washington | 7,500 | 467,000 | $85,000 | 7,500 | 467,000 | $85,000 | 18,700 | 1,189,000 | $216,000 |
| SW Washington | Portland, OR | 87,000 | 11,353,000 | $1,687,000 | 87,000 | 11,352,000 | $1,687,000 | 186,300 | 24,688,000 | $3,651,000 |
| SW Washington | Central Oregon | 14,400 | 3,057,000 | $404,000 | 14,400 | 3,055,000 | $404,000 | 14,000 | 3,006,000 | $398,000 |
| Portland, OR | Portland | 1,500 | 15,000 | $9,000 | 1,500 | 15,000 | $9,000 | 2,200 | 22,000 | $14,000 |
| Portland, OR | Central Oregon | 67,900 | 6,687,000 | $898,000 | 67,400 | 6,637,000 | $891,000 | 70,700 | 6,972,000 | $936,000 |
| Central Oregon | Central Oregon | 5,200 | 308,000 | $42,000 | 5,100 | 306,000 | $42,000 | 5,300 | 317,000 | $43,000 |
| | **TOTAL** | 659,100 | 99,481,000 | $14,900,000 | 661,900 | 100,538,000 | $15,031,000 | 1,488,100 | 225,460,000 | $34,280,000 |

FY02 is Amtrak's Fiscal Year 2002 (Oct 2001- Sept 2002)
Vancouver = VAC; NW Washington = BEL, MVW, EVR; Seattle = EDM, SEA, TUK; SW Washington = TAC,OLW,CTL,KEL
Portland = VAN, PDX; Central Oregon = SLM, ALY, EUG

## Market Summary – Continued

| | | FY 23 Build Estimate (Linked Trips) | | | FY 23 Rev A Build Estimate | | | FY 23 Rev A-Scott Rd Build Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| Vancouver, BC | NW Washington | 142,600 | 13,227,000 | $2,441,000 | 188,100 | 17,327,000 | $3,205,000 | 231,400 | 20,813,000 | $3,882,000 |
| Vancouver, BC | Seattle | 559,700 | 86,730,000 | $14,482,000 | 662,800 | 102,707,000 | $17,150,000 | 709,500 | 109,945,000 | $18,358,000 |
| Vancouver, BC | SW Washington | 4,100 | 848,000 | $116,000 | 5,200 | 1,078,000 | $148,000 | 5,800 | 1,202,000 | $165,000 |
| Vancouver, BC | Portland, OR | 3,900 | 1,321,000 | $170,000 | 4,500 | 1,544,000 | $199,000 | 5,000 | 1,688,000 | $217,000 |
| Vancouver, BC | Central Oregon | 400 | 161,000 | $20,000 | 400 | 160,000 | $20,000 | 400 | 163,000 | $21,000 |
| NW Washington | NW Washington | 7,500 | 404,000 | $85,000 | 8,700 | 471,000 | $99,000 | 8,700 | 471,000 | $99,000 |
| NW Washington | Seattle | 235,900 | 21,356,000 | $3,547,000 | 264,100 | 24,033,000 | $3,990,000 | 264,100 | 24,033,000 | $3,990,000 |
| NW Washington | SW Washington | 65,000 | 8,570,000 | $1,288,000 | 74,300 | 9,809,000 | $1,474,000 | 74,300 | 9,809,000 | $1,474,000 |
| NW Washington | Portland, OR | 44,200 | 10,602,000 | $1,425,000 | 48,700 | 11,663,000 | $1,568,000 | 48,700 | 11,663,000 | $1,568,000 |
| NW Washington | Central Oregon | 15,600 | 5,188,000 | $669,000 | 15,900 | 5,265,000 | $679,000 | 15,900 | 5,265,000 | $679,000 |
| Seattle | Seattle | 6,700 | 143,000 | $46,000 | 8,300 | 177,000 | $57,000 | 8,300 | 177,000 | $57,000 |
| Seattle | SW Washington | 201,600 | 19,059,000 | $3,179,000 | 200,100 | 18,910,000 | $3,154,000 | 200,100 | 18,910,000 | $3,154,000 |
| Seattle | Portland, OR | 1,102,400 | 203,980,000 | $30,158,000 | 1,106,100 | 204,669,000 | $30,260,000 | 1,106,100 | 204,669,000 | $30,260,000 |
| Seattle | Central Oregon | 145,500 | 40,829,000 | $5,221,000 | 142,100 | 39,880,000 | $5,099,000 | 142,100 | 39,880,000 | $5,099,000 |
| SW Washington | SW Washington | 33,700 | 2,188,000 | $399,000 | 35,500 | 2,297,000 | $419,000 | 35,500 | 2,297,000 | $419,000 |
| SW Washington | Portland, OR | 380,500 | 50,691,000 | $7,481,000 | 393,000 | 52,414,000 | $7,734,000 | 393,000 | 52,414,000 | $7,734,000 |
| SW Washington | Central Oregon | 46,000 | 9,841,000 | $1,301,000 | 46,100 | 9,850,000 | $1,302,000 | 46,100 | 9,850,000 | $1,302,000 |
| Portland, OR | Portland, OR | 3,400 | 34,000 | $22,000 | 3,500 | 35,000 | $22,000 | 3,500 | 35,000 | $22,000 |
| Portland, OR | Central Oregon | 181,500 | 18,047,000 | $2,423,000 | 179,100 | 17,811,000 | $2,392,000 | 179,100 | 17,811,000 | $2,392,000 |
| Central Oregon | Central Oregon | 11,400 | 709,000 | $95,000 | 11,400 | 704,000 | $94,000 | 11,400 | 704,000 | $94,000 |
| | TOTAL | 3,191,500 | 493,930,000 | $74,568,000 | 3,397,800 | 520,804,000 | $79,064,000 | 3,488,900 | 531,800,000 | $80,985,000 |

FY02 is Amtrak's Fiscal Year 2002 (Oct 2001- Sept 2002)
Vancouver = VAC; NW Washington = BEL, MVW, EVR; Seattle = EDM, SEA, TUK; SW Washington = TAC,OLW,CTL,KEL
Portland = VAN, PDX; Central Oregon = SLM, ALY, EUG

## Market Summary – Continued

| | | FY 08- Fare Increase Estimate | | | FY 23 Rev A Fare Incr. Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| Vancouver, BC | NW Washington | 39,800 | 3,778,000 | $851,000 | 141,100 | 13,086,000 | $3,529,000 |
| Vancouver, BC | Seattle | 208,900 | 32,245,000 | $6,670,000 | 567,600 | 87,958,000 | $21,465,000 |
| Vancouver, BC | SW Washington | 1,100 | 235,000 | $40,000 | 3,800 | 790,000 | $159,000 |
| Vancouver, BC | Portland, OR | 1,200 | 409,000 | $65,000 | 3,400 | 1,167,000 | $219,000 |
| Vancouver, BC | Central Oregon | 200 | 77,000 | $12,000 | 400 | 160,000 | $29,000 |
| NW Washington | NW Washington | 3,300 | 174,000 | $45,000 | 6,900 | 371,000 | $114,000 |
| NW Washington | Seattle | 109,500 | 9,566,000 | $1,968,000 | 221,500 | 20,116,000 | $4,882,000 |
| NW Washington | SW Washington | 28,700 | 3,642,000 | $679,000 | 57,100 | 7,542,000 | $1,656,000 |
| NW Washington | Portland, OR | 17,200 | 4,110,000 | $680,000 | 38,400 | 9,218,000 | $1,810,000 |
| NW Washington | Central Oregon | 2,400 | 791,000 | $126,000 | 12,100 | 4,023,000 | $758,000 |
| Seattle | Seattle | 5,100 | 108,000 | $43,000 | 7,500 | 160,000 | $75,000 |
| Seattle | SW Washington | 91,900 | 8,453,000 | $1,749,000 | 166,400 | 15,640,000 | $3,818,000 |
| Seattle | Portland, OR | 505,200 | 93,247,000 | $17,001,000 | 965,200 | 178,591,000 | $38,591,000 |
| Seattle | Central Oregon | 41,200 | 11,442,000 | $1,793,000 | 119,000 | 33,394,000 | $6,241,000 |
| SW Washington | SW Washington | 16,300 | 1,025,000 | $229,000 | 28,600 | 1,816,000 | $482,000 |
| SW Washington | Portland, OR | 163,100 | 21,662,000 | $3,939,000 | 322,200 | 43,103,000 | $9,285,000 |
| SW Washington | Central Oregon | 11,800 | 2,545,000 | $414,000 | 35,700 | 7,635,000 | $1,475,000 |
| Portland, OR | Portland, OR | 2,100 | 21,000 | $16,000 | 3,100 | 31,000 | $29,000 |
| Portland, OR | Central Oregon | 62,700 | 6,186,000 | $1,022,000 | 149,200 | 14,840,000 | $2,912,000 |
| Central Oregon | Central Oregon | 4,800 | 281,000 | $47,000 | 9,400 | 583,000 | $114,000 |
| | TOTAL | 1,316,500 | 199,997,000 | $37,391,000 | 2,858,700 | 440,225,000 | $97,645,000 |

FY02 is Amtrak's Fiscal Year 2002 (Oct 2001- Sept 2002)
Vancouver = VAC; NW Washington = BEL, MVW, EVR; Seattle = EDM, SEA, TUK; SW Washington = TAC,OLW,CTL,KEL
Portland = VAN, PDX; Central Oregon = SLM, ALY, EUG

## Station Pair Summary

| Station Pairs | | FY 2002 Actual (Unlinked Trips) | | | FY 02 Estimated (Linked Trips) | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| VAC | BEL | 5,203 | 301,764 | $67,135 | 5,203 | 301,764 | $67,135 |
| VAC | MVW | 4,355 | 365,813 | $69,713 | 4,145 | 348,206 | $66,358 |
| VAC | EVR | 8,923 | 1,097,577 | $185,626 | 8,494 | 1,044,750 | $176,692 |
| VAC | EDM | 11,725 | 1,618,067 | $277,689 | 11,826 | 1,631,966 | $280,074 |
| VAC | SEA | 64,279 | 10,027,533 | $1,700,191 | 64,831 | 10,113,664 | $1,714,794 |
| VAC | TUK | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | TAC | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | OLW | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | CTL | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | KEL | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | VAN | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | PDX | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | SLM | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | ALY | 0 | 0 | $0 | 0 | 0 | $0 |
| VAC | EUG | 0 | 0 | $0 | 0 | 0 | $0 |
| BEL | MVW | 396 | 10,302 | $3,199 | 387 | 10,066 | $3,126 |
| BEL | EVR | 1,199 | 77,951 | $15,094 | 1,172 | 76,169 | $14,749 |
| BEL | EDM | 4,351 | 348,074 | $61,249 | 4,129 | 330,307 | $58,123 |
| BEL | SEA | 33,321 | 3,265,494 | $544,406 | 31,620 | 3,098,806 | $516,617 |
| BEL | TUK | 0 | 0 | $0 | 678 | 76,638 | $11,967 |
| BEL | TAC | 0 | 0 | $0 | 467 | 64,433 | $9,581 |
| BEL | OLW | 0 | 0 | $0 | 188 | 31,895 | $4,540 |
| BEL | CTL | 0 | 0 | $0 | 96 | 18,337 | $2,553 |
| BEL | KEL | 0 | 0 | $0 | 75 | 17,566 | $2,368 |
| BEL | VAN | 0 | 0 | $0 | 64 | 17,565 | $2,318 |
| BEL | PDX | 0 | 0 | $0 | 581 | 165,102 | $21,690 |
| BEL | SLM | 0 | 0 | $0 | 118 | 39,766 | $5,122 |
| BEL | ALY | 0 | 0 | $0 | 69 | 25,185 | $3,217 |
| BEL | EUG | 0 | 0 | $0 | 136 | 55,488 | $7,014 |
| MVW | EVR | 271 | 10,584 | $2,583 | 271 | 10,562 | $2,577 |
| MVW | EDM | 444 | 23,997 | $4,061 | 456 | 24,642 | $4,170 |
| MVW | SEA | 11,078 | 797,630 | $127,367 | 11,376 | 819,081 | $130,792 |
| MVW | TUK | 0 | 0 | $0 | 0 | 0 | $0 |
| MVW | TAC | 0 | 0 | $0 | 830 | 92,960 | $14,550 |
| MVW | OLW | 0 | 0 | $0 | 132 | 19,029 | $2,803 |
| MVW | CTL | 0 | 0 | $0 | 168 | 27,807 | $3,977 |
| MVW | KEL | 0 | 0 | $0 | 63 | 13,262 | $1,820 |
| MVW | VAN | 0 | 0 | $0 | 112 | 27,795 | $3,718 |
| MVW | PDX | 0 | 0 | $0 | 382 | 98,486 | $13,101 |
| MVW | SLM | 0 | 0 | $0 | 82 | 25,502 | $3,314 |
| MVW | ALY | 0 | 0 | $0 | 48 | 16,272 | $2,094 |
| MVW | EUG | 0 | 0 | $0 | 96 | 36,672 | $4,664 |

## Station Pair Summary - Continued

| Station Pairs | | FY 2002 Actual (Unlinked Trips) | | | FY 02 Estimated (Linked Trips) | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| EVR | EDM | 188 | 2,814 | $842 | 193 | 2,890 | $865 |
| EVR | SEA | 4,367 | 144,095 | $33,326 | 4,484 | 147,970 | $34,223 |
| EVR | TUK | 0 | 0 | $0 | 0 | 0 | $0 |
| EVR | TAC | 0 | 0 | $0 | 325 | 23,725 | $4,240 |
| EVR | OLW | 0 | 0 | $0 | 241 | 25,345 | $4,037 |
| EVR | CTL | 0 | 0 | $0 | 157 | 19,972 | $3,028 |
| EVR | KEL | 0 | 0 | $0 | 163 | 27,686 | $3,941 |
| EVR | VAN | 0 | 0 | $0 | 428 | 89,361 | $12,265 |
| EVR | PDX | 0 | 0 | $0 | 1,281 | 280,587 | $38,225 |
| EVR | SLM | 0 | 0 | $0 | 287 | 78,064 | $10,312 |
| EVR | ALY | 0 | 0 | $0 | 171 | 51,300 | $6,695 |
| EVR | EUG | 0 | 0 | $0 | 344 | 117,992 | $15,169 |
| EDM | SEA | 2,724 | 49,029 | $17,302 | 2,799 | 50,382 | $17,780 |
| EDM | TUK | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | TAC | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | OLW | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | CTL | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | KEL | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | VAN | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | PDX | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | SLM | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | ALY | 0 | 0 | $0 | 0 | 0 | $0 |
| EDM | EUG | 0 | 0 | $0 | 0 | 0 | $0 |
| SEA | TUK | 59 | 889 | $394 | 61 | 914 | $405 |
| SEA | TAC | 8,398 | 335,903 | $80,665 | 8,601 | 344,043 | $82,620 |
| SEA | OLW | 11,738 | 845,170 | $147,427 | 10,589 | 762,441 | $132,996 |
| SEA | CTL | 6,292 | 591,451 | $104,499 | 6,251 | 587,592 | $103,817 |
| SEA | KEL | 12,205 | 1,672,114 | $251,413 | 12,126 | 1,661,203 | $249,772 |
| SEA | VAN | 35,887 | 6,316,197 | $921,678 | 35,465 | 6,241,776 | $910,818 |
| SEA | PDX | 202,595 | 37,682,694 | $5,602,405 | 200,208 | 37,238,698 | $5,536,394 |
| SEA | SLM | 13,395 | 3,201,442 | $418,888 | 13,727 | 3,280,664 | $429,254 |
| SEA | ALY | 8,295 | 2,214,651 | $286,979 | 8,500 | 2,269,455 | $294,080 |
| SEA | EUG | 18,117 | 5,616,395 | $696,433 | 18,566 | 5,755,377 | $713,667 |
| TUK | TAC | 61 | 1,535 | $594 | 63 | 1,572 | $608 |
| TUK | OLW | 103 | 5,889 | $1,408 | 93 | 5,313 | $1,270 |
| TUK | CTL | 155 | 12,267 | $2,630 | 154 | 12,187 | $2,613 |
| TUK | KEL | 259 | 31,544 | $5,875 | 257 | 31,338 | $5,836 |
| TUK | VAN | 1,005 | 161,796 | $24,785 | 993 | 159,889 | $24,493 |
| TUK | PDX | 3,917 | 669,726 | $105,210 | 3,870 | 661,835 | $103,971 |
| TUK | SLM | 123 | 27,597 | $3,641 | 126 | 28,279 | $3,731 |
| TUK | ALY | 114 | 28,788 | $3,714 | 117 | 29,500 | $3,806 |
| TUK | EUG | 129 | 38,146 | $5,298 | 133 | 39,090 | $5,430 |

## Station Pair Summary - Continued

| Station Pairs | | FY 2002 Actual (Unlinked Trips) | | | FY 02 Estimated (Linked Trips) | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| TAC | OLW | 1,564 | 50,035 | $7,060 | 1,562 | 49,974 | $7,052 |
| TAC | CTL | 1,853 | 100,080 | $18,559 | 1,854 | 100,125 | $18,568 |
| TAC | KEL | 2,405 | 233,265 | $43,481 | 2,406 | 233,369 | $43,500 |
| TAC | VAN | 10,797 | 1,468,356 | $212,178 | 10,796 | 1,468,314 | $212,172 |
| TAC | PDX | 48,592 | 7,094,454 | $1,021,733 | 48,591 | 7,094,249 | $1,021,704 |
| TAC | SLM | 3,377 | 672,050 | $90,293 | 3,375 | 671,539 | $90,224 |
| TAC | ALY | 1,770 | 401,840 | $51,968 | 1,769 | 401,535 | $51,928 |
| TAC | EUG | 3,056 | 825,106 | $109,604 | 3,054 | 824,479 | $109,521 |
| OLW | CTL | 463 | 10,182 | $3,466 | 463 | 10,182 | $3,466 |
| OLW | KEL | 936 | 60,813 | $9,617 | 936 | 60,814 | $9,617 |
| OLW | VAN | 3,954 | 411,241 | $52,620 | 3,954 | 411,222 | $52,617 |
| OLW | PDX | 15,898 | 1,812,323 | $289,183 | 15,897 | 1,812,241 | $289,170 |
| OLW | SLM | 1,239 | 206,994 | $27,624 | 1,239 | 206,871 | $27,607 |
| OLW | ALY | 817 | 159,297 | $21,299 | 816 | 159,202 | $21,286 |
| OLW | EUG | 1,638 | 389,830 | $48,718 | 1,637 | 389,598 | $48,689 |
| CTL | KEL | 295 | 12,664 | $3,090 | 294 | 12,663 | $3,090 |
| CTL | VAN | 532 | 43,636 | $8,272 | 532 | 43,626 | $8,270 |
| CTL | PDX | 4,027 | 370,453 | $64,704 | 4,026 | 370,374 | $64,690 |
| CTL | SLM | 423 | 61,343 | $8,739 | 423 | 61,310 | $8,734 |
| CTL | ALY | 271 | 46,842 | $6,254 | 271 | 46,817 | $6,250 |
| CTL | EUG | 519 | 112,199 | $14,245 | 519 | 112,140 | $14,237 |
| KEL | VAN | 408 | 15,915 | $4,610 | 408 | 15,912 | $4,609 |
| KEL | PDX | 2,785 | 136,480 | $33,922 | 2,785 | 136,451 | $33,915 |
| KEL | SLM | 370 | 37,778 | $5,511 | 370 | 37,758 | $5,509 |
| KEL | ALY | 236 | 30,653 | $4,841 | 236 | 30,637 | $4,839 |
| KEL | EUG | 653 | 112,961 | $15,162 | 653 | 112,901 | $15,154 |
| VAN | PDX | 1,452 | 14,517 | $9,278 | 1,452 | 14,517 | $9,278 |
| VAN | SLM | 336 | 21,188 | $4,090 | 334 | 21,030 | $4,059 |
| VAN | ALY | 311 | 28,345 | $4,892 | 309 | 28,134 | $4,855 |
| VAN | EUG | 802 | 107,535 | $16,122 | 796 | 106,731 | $16,001 |
| PDX | SLM | 17,840 | 945,497 | $130,957 | 17,706 | 938,426 | $129,978 |
| PDX | ALY | 10,271 | 831,911 | $107,513 | 10,194 | 825,689 | $106,709 |
| PDX | EUG | 38,325 | 4,752,250 | $634,501 | 38,038 | 4,716,711 | $629,756 |
| SLM | ALY | 993 | 27,813 | $4,877 | 989 | 27,699 | $4,857 |
| SLM | EUG | 3,589 | 254,795 | $31,869 | 3,566 | 253,192 | $31,668 |
| ALY | EUG | 594 | 25,530 | $5,367 | 589 | 25,335 | $5,326 |
| | **Total** | **659,064** | **99,481,090** | **$14,899,935** | **661,904** | **100,537,952** | **$15,030,881** |

## Station Pair Summary - Continued

| Station Pairs | | FY 08 Build Estimate | | | FY 23 Build Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| VAC | BEL | 14,674 | 851,078 | $189,343 | 47,971 | 2,782,340 | $619,001 |
| VAC | MVW | 11,126 | 934,582 | $178,104 | 30,683 | 2,577,387 | $491,176 |
| VAC | EVR | 23,193 | 2,852,717 | $482,461 | 63,961 | 7,867,214 | $1,330,530 |
| VAC | EDM | 34,170 | 4,715,461 | $809,255 | 76,212 | 10,517,269 | $1,804,947 |
| VAC | SEA | 193,622 | 30,205,014 | $5,121,328 | 431,113 | 67,253,584 | $11,402,996 |
| VAC | TUK | 13,961 | 2,387,393 | $339,471 | 52,393 | 8,959,169 | $1,273,931 |
| VAC | TAC | 977 | 191,462 | $26,560 | 2,945 | 577,151 | $80,065 |
| VAC | OLW | 227 | 51,658 | $6,994 | 659 | 150,158 | $20,331 |
| VAC | CTL | 121 | 30,225 | $4,038 | 308 | 76,981 | $10,285 |
| VAC | KEL | 53 | 15,637 | $2,046 | 151 | 44,178 | $5,782 |
| VAC | VAN | 208 | 69,186 | $8,925 | 596 | 197,863 | $25,526 |
| VAC | PDX | 1,242 | 424,720 | $54,617 | 3,284 | 1,123,022 | $144,417 |
| VAC | SLM | 66 | 26,084 | $3,307 | 134 | 52,741 | $6,686 |
| VAC | ALY | 38 | 16,037 | $2,021 | 80 | 33,663 | $4,241 |
| VAC | EUG | 75 | 35,048 | $4,380 | 161 | 74,805 | $9,349 |
| BEL | MVW | 836 | 21,744 | $6,753 | 1,691 | 43,969 | $13,655 |
| BEL | EVR | 2,489 | 161,801 | $31,331 | 5,073 | 329,728 | $63,849 |
| BEL | EDM | 8,811 | 704,880 | $124,035 | 16,470 | 1,317,593 | $231,851 |
| BEL | SEA | 62,928 | 6,166,981 | $1,028,127 | 119,950 | 11,755,130 | $1,959,754 |
| BEL | TUK | 12,997 | 1,468,640 | $229,329 | 37,924 | 4,285,359 | $669,161 |
| BEL | TAC | 5,916 | 816,465 | $121,405 | 12,879 | 1,777,352 | $264,285 |
| BEL | OLW | 2,376 | 403,947 | $57,503 | 5,304 | 901,616 | $128,348 |
| BEL | CTL | 803 | 154,267 | $21,477 | 1,689 | 324,243 | $45,141 |
| BEL | KEL | 708 | 166,458 | $22,436 | 1,680 | 394,819 | $53,217 |
| BEL | VAN | 488 | 133,689 | $17,643 | 1,143 | 313,069 | $41,316 |
| BEL | PDX | 4,233 | 1,202,142 | $157,929 | 9,872 | 2,803,768 | $368,340 |
| BEL | SLM | 271 | 91,209 | $11,748 | 1,409 | 474,711 | $61,142 |
| BEL | ALY | 158 | 57,624 | $7,361 | 843 | 307,848 | $39,324 |
| BEL | EUG | 323 | 131,775 | $16,656 | 1,739 | 709,373 | $89,663 |
| MVW | EVR | 476 | 18,561 | $4,529 | 766 | 29,871 | $7,289 |
| MVW | EDM | 912 | 49,267 | $8,337 | 1,372 | 74,085 | $12,536 |
| MVW | SEA | 21,235 | 1,528,919 | $244,141 | 32,762 | 2,358,857 | $376,667 |
| MVW | TUK | 5,778 | 502,659 | $84,672 | 11,292 | 982,411 | $165,485 |
| MVW | TAC | 8,317 | 931,472 | $145,792 | 13,812 | 1,546,928 | $242,122 |
| MVW | OLW | 1,469 | 211,540 | $31,158 | 3,286 | 473,118 | $69,686 |
| MVW | CTL | 1,429 | 237,136 | $33,913 | 3,090 | 512,940 | $73,357 |
| MVW | KEL | 538 | 112,411 | $15,428 | 1,284 | 268,309 | $36,825 |
| MVW | VAN | 721 | 178,840 | $23,920 | 1,746 | 432,949 | $57,907 |
| MVW | PDX | 2,555 | 659,068 | $87,671 | 5,996 | 1,547,060 | $205,795 |
| MVW | SLM | 170 | 52,950 | $6,881 | 925 | 287,737 | $37,392 |
| MVW | ALY | 99 | 33,640 | $4,330 | 549 | 186,199 | $23,967 |
| MVW | EUG | 203 | 77,679 | $9,879 | 1,127 | 430,521 | $54,751 |

## Station Pair Summary - Continued

| Station Pairs | | FY 08 Build Estimate | | | FY 23 Build Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| EVR | EDM | 368 | 5,521 | $1,652 | 518 | 7,768 | $2,324 |
| EVR | SEA | 8,043 | 265,415 | $61,386 | 11,626 | 383,653 | $88,732 |
| EVR | TUK | 2,446 | 117,405 | $24,875 | 3,983 | 191,182 | $40,507 |
| EVR | TAC | 4,884 | 356,549 | $63,715 | 7,008 | 511,557 | $91,415 |
| EVR | OLW | 4,377 | 459,587 | $73,206 | 8,502 | 892,742 | $142,201 |
| EVR | CTL | 1,535 | 194,888 | $29,548 | 2,950 | 374,656 | $56,803 |
| EVR | KEL | 1,616 | 274,740 | $39,110 | 3,483 | 592,066 | $84,282 |
| EVR | VAN | 3,087 | 645,173 | $88,549 | 6,623 | 1,384,210 | $189,981 |
| EVR | PDX | 8,839 | 1,935,677 | $263,703 | 18,819 | 4,121,310 | $561,458 |
| EVR | SLM | 581 | 158,100 | $20,884 | 3,230 | 878,627 | $116,063 |
| EVR | ALY | 344 | 103,191 | $13,466 | 1,927 | 578,136 | $75,447 |
| EVR | EUG | 702 | 240,798 | $30,956 | 3,892 | 1,335,089 | $171,635 |
| EDM | SEA | 4,144 | 74,591 | $26,323 | 4,960 | 89,272 | $31,503 |
| EDM | TUK | 1,171 | 38,645 | $9,890 | 1,548 | 51,091 | $13,075 |
| EDM | TAC | 2,520 | 146,136 | $28,522 | 4,809 | 278,904 | $54,434 |
| EDM | OLW | 556 | 50,023 | $8,337 | 1,709 | 153,841 | $25,640 |
| EDM | CTL | 425 | 47,566 | $7,445 | 1,418 | 158,795 | $24,854 |
| EDM | KEL | 627 | 97,123 | $14,083 | 2,341 | 362,859 | $52,615 |
| EDM | VAN | 2,891 | 560,888 | $77,946 | 15,670 | 3,039,963 | $422,461 |
| EDM | PDX | 12,988 | 2,649,630 | $365,103 | 44,993 | 9,178,475 | $1,264,740 |
| EDM | SLM | 745 | 191,488 | $25,486 | 9,805 | 2,520,005 | $335,396 |
| EDM | ALY | 445 | 126,771 | $16,647 | 5,868 | 1,672,461 | $219,620 |
| EDM | EUG | 913 | 299,616 | $38,703 | 11,837 | 3,882,515 | $501,531 |
| SEA | TUK | 166 | 2,490 | $1,104 | 202 | 3,034 | $1,345 |
| SEA | TAC | 14,593 | 583,716 | $140,176 | 23,784 | 951,376 | $228,468 |
| SEA | OLW | 33,824 | 2,435,351 | $424,810 | 63,831 | 4,595,808 | $801,669 |
| SEA | CTL | 17,114 | 1,608,704 | $284,229 | 34,427 | 3,236,097 | $571,760 |
| SEA | KEL | 32,869 | 4,503,114 | $677,070 | 65,505 | 8,974,160 | $1,349,319 |
| SEA | VAN | 80,155 | 14,107,366 | $2,058,587 | 153,135 | 26,951,720 | $3,932,872 |
| SEA | PDX | 446,661 | 83,079,019 | $12,351,619 | 861,276 | 160,197,249 | $23,817,029 |
| SEA | SLM | 14,692 | 3,511,479 | $459,454 | 37,656 | 8,999,787 | $1,177,564 |
| SEA | ALY | 9,207 | 2,458,264 | $318,546 | 24,280 | 6,482,857 | $840,060 |
| SEA | EUG | 20,031 | 6,209,669 | $769,999 | 54,189 | 16,798,602 | $2,083,027 |
| TUK | TAC | 128 | 3,207 | $1,240 | 208 | 5,203 | $2,012 |
| TUK | OLW | 362 | 20,607 | $4,927 | 682 | 38,857 | $9,291 |
| TUK | CTL | 523 | 41,304 | $8,857 | 1,054 | 83,228 | $17,847 |
| TUK | KEL | 891 | 108,665 | $20,238 | 1,801 | 219,702 | $40,917 |
| TUK | VAN | 2,888 | 464,982 | $71,229 | 5,614 | 903,910 | $138,467 |
| TUK | PDX | 11,091 | 1,896,549 | $297,937 | 21,685 | 3,708,206 | $582,539 |
| TUK | SLM | 139 | 31,205 | $4,117 | 561 | 125,567 | $16,566 |
| TUK | ALY | 132 | 33,226 | $4,286 | 558 | 140,672 | $18,148 |
| TUK | EUG | 150 | 44,168 | $6,135 | 701 | 206,825 | $28,727 |

## Station Pair Summary - Continued

| Station Pairs | | FY 08 Build Estimate | | | FY 23 Build Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| TAC | OLW | 4,115 | 131,687 | $18,581 | 6,528 | 208,905 | $29,477 |
| TAC | CTL | 5,077 | 274,143 | $50,838 | 9,668 | 522,094 | $96,819 |
| TAC | KEL | 6,575 | 637,747 | $118,877 | 12,462 | 1,208,793 | $225,320 |
| TAC | VAN | 24,907 | 3,387,349 | $489,473 | 51,184 | 6,961,007 | $1,005,867 |
| TAC | PDX | 110,721 | 16,165,256 | $2,328,097 | 230,198 | 33,608,839 | $4,840,297 |
| TAC | SLM | 3,560 | 708,459 | $95,185 | 10,654 | 2,120,087 | $284,843 |
| TAC | ALY | 1,882 | 427,110 | $55,236 | 5,807 | 1,318,275 | $170,485 |
| TAC | EUG | 3,215 | 868,103 | $115,315 | 10,166 | 2,744,928 | $364,625 |
| OLW | CTL | 811 | 17,840 | $6,074 | 1,411 | 31,031 | $10,564 |
| OLW | KEL | 1,635 | 106,276 | $16,806 | 2,829 | 183,910 | $29,084 |
| OLW | VAN | 7,358 | 765,243 | $97,915 | 14,663 | 1,524,939 | $195,121 |
| OLW | PDX | 29,303 | 3,340,589 | $533,041 | 59,168 | 6,745,168 | $1,076,293 |
| OLW | SLM | 1,110 | 185,418 | $24,744 | 3,757 | 627,342 | $83,720 |
| OLW | ALY | 738 | 143,999 | $19,253 | 2,583 | 503,603 | $67,334 |
| OLW | EUG | 1,466 | 348,913 | $43,605 | 5,269 | 1,254,126 | $156,731 |
| CTL | KEL | 506 | 21,739 | $5,304 | 770 | 33,102 | $8,076 |
| CTL | VAN | 981 | 80,427 | $15,246 | 1,743 | 142,946 | $27,098 |
| CTL | PDX | 7,362 | 677,312 | $118,301 | 13,255 | 1,219,477 | $212,996 |
| CTL | SLM | 344 | 49,825 | $7,098 | 1,272 | 184,462 | $26,279 |
| CTL | ALY | 222 | 38,377 | $5,123 | 851 | 147,199 | $19,652 |
| CTL | EUG | 421 | 91,004 | $11,554 | 1,669 | 360,423 | $45,760 |
| KEL | VAN | 735 | 28,654 | $8,299 | 1,306 | 50,953 | $14,757 |
| KEL | PDX | 4,964 | 243,235 | $60,456 | 8,940 | 438,072 | $108,882 |
| KEL | SLM | 296 | 30,148 | $4,398 | 1,120 | 114,196 | $16,660 |
| KEL | ALY | 190 | 24,681 | $3,898 | 747 | 97,151 | $15,344 |
| KEL | EUG | 522 | 90,235 | $12,112 | 2,134 | 369,181 | $49,553 |
| VAN | PDX | 2,243 | 22,426 | $14,333 | 3,408 | 34,083 | $21,782 |
| VAN | SLM | 344 | 21,654 | $4,180 | 873 | 54,968 | $10,610 |
| VAN | ALY | 321 | 29,233 | $5,045 | 850 | 77,392 | $13,355 |
| VAN | EUG | 823 | 110,273 | $16,532 | 2,273 | 304,638 | $45,671 |
| PDX | SLM | 18,457 | 978,202 | $135,487 | 45,349 | 2,403,518 | $332,901 |
| PDX | ALY | 10,713 | 867,761 | $112,146 | 27,374 | 2,217,280 | $286,553 |
| PDX | EUG | 40,036 | 4,964,492 | $662,839 | 104,753 | 12,989,344 | $1,734,285 |
| SLM | ALY | 1,042 | 29,173 | $5,115 | 1,687 | 47,224 | $8,280 |
| SLM | EUG | 3,692 | 262,165 | $32,791 | 8,661 | 614,924 | $76,912 |
| ALY | EUG | 608 | 26,128 | $5,493 | 1,098 | 47,219 | $9,927 |
| | **Total** | **1,488,150** | **225,459,949** | **$34,280,123** | **3,191,468** | **493,929,930** | **$74,568,346** |

## Station Pair Summary - Continued

| Station Pairs | | FY 23 Rev A Build Estimate | | | FY 23 Rev A-Scott Rd Build Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| VAC | BEL | 65,504 | 3,799,221 | $845,231 | 90,255 | 5,234,780 | $1,164,607 |
| VAC | MVW | 39,740 | 3,338,163 | $636,158 | 45,765 | 3,844,276 | $732,608 |
| VAC | EVR | 82,841 | 10,189,406 | $1,723,267 | 95,401 | 11,734,267 | $1,984,539 |
| VAC | EDM | 90,251 | 12,454,665 | $2,137,438 | 96,612 | 13,332,408 | $2,288,074 |
| VAC | SEA | 510,528 | 79,642,426 | $13,503,552 | 546,508 | 85,255,234 | $14,455,216 |
| VAC | TUK | 62,044 | 10,609,546 | $1,508,603 | 66,417 | 11,357,255 | $1,614,922 |
| VAC | TAC | 3,762 | 737,305 | $102,282 | 4,230 | 829,133 | $115,021 |
| VAC | OLW | 845 | 192,679 | $26,088 | 967 | 220,404 | $29,842 |
| VAC | CTL | 379 | 94,749 | $12,658 | 396 | 99,012 | $13,228 |
| VAC | KEL | 183 | 53,525 | $7,005 | 181 | 53,016 | $6,938 |
| VAC | VAN | 702 | 233,212 | $30,086 | 799 | 265,340 | $34,230 |
| VAC | PDX | 3,834 | 1,311,137 | $168,608 | 4,160 | 1,422,556 | $182,936 |
| VAC | SLM | 142 | 56,169 | $7,121 | 145 | 57,413 | $7,278 |
| VAC | ALY | 89 | 37,455 | $4,719 | 90 | 38,277 | $4,823 |
| VAC | EUG | 142 | 66,265 | $8,282 | 145 | 67,715 | $8,463 |
| BEL | MVW | 1,992 | 51,792 | $16,085 | 1,992 | 51,792 | $16,085 |
| BEL | EVR | 5,975 | 388,398 | $75,210 | 5,975 | 388,398 | $75,210 |
| BEL | EDM | 18,777 | 1,502,173 | $264,331 | 18,777 | 1,502,173 | $264,331 |
| BEL | SEA | 136,754 | 13,401,896 | $2,234,294 | 136,754 | 13,401,896 | $2,234,294 |
| BEL | TUK | 43,236 | 4,885,691 | $762,903 | 43,236 | 4,885,691 | $762,903 |
| BEL | TAC | 15,107 | 2,084,811 | $310,002 | 15,107 | 2,084,811 | $310,002 |
| BEL | OLW | 6,321 | 1,074,621 | $152,975 | 6,321 | 1,074,621 | $152,975 |
| BEL | CTL | 1,940 | 372,525 | $51,863 | 1,940 | 372,525 | $51,863 |
| BEL | KEL | 1,923 | 451,962 | $60,919 | 1,923 | 451,962 | $60,919 |
| BEL | VAN | 1,284 | 351,752 | $46,421 | 1,284 | 351,752 | $46,421 |
| BEL | PDX | 10,855 | 3,082,858 | $405,005 | 10,855 | 3,082,858 | $405,005 |
| BEL | SLM | 1,444 | 486,510 | $62,662 | 1,444 | 486,510 | $62,662 |
| BEL | ALY | 869 | 317,004 | $40,494 | 869 | 317,004 | $40,494 |
| BEL | EUG | 1,800 | 734,343 | $92,819 | 1,800 | 734,343 | $92,819 |
| MVW | EVR | 777 | 30,322 | $7,399 | 777 | 30,322 | $7,399 |
| MVW | EDM | 1,456 | 78,639 | $13,307 | 1,456 | 78,639 | $13,307 |
| MVW | SEA | 34,776 | 2,503,842 | $399,818 | 34,776 | 2,503,842 | $399,818 |
| MVW | TUK | 11,986 | 1,042,794 | $175,657 | 11,986 | 1,042,794 | $175,657 |
| MVW | TAC | 14,711 | 1,647,591 | $257,877 | 14,711 | 1,647,591 | $257,877 |
| MVW | OLW | 3,647 | 525,117 | $77,345 | 3,647 | 525,117 | $77,345 |
| MVW | CTL | 3,359 | 557,596 | $79,743 | 3,359 | 557,596 | $79,743 |
| MVW | KEL | 1,397 | 291,871 | $40,059 | 1,397 | 291,871 | $40,059 |
| MVW | VAN | 1,925 | 477,312 | $63,841 | 1,925 | 477,312 | $63,841 |
| MVW | PDX | 6,344 | 1,636,860 | $217,740 | 6,344 | 1,636,860 | $217,740 |
| MVW | SLM | 913 | 283,956 | $36,901 | 913 | 283,956 | $36,901 |
| MVW | ALY | 546 | 185,140 | $23,831 | 546 | 185,140 | $23,831 |
| MVW | EUG | 1,130 | 431,785 | $54,911 | 1,130 | 431,785 | $54,911 |

## Station Pair Summary - Continued

| Station Pairs | | FY 23 Rev A Build Estimate | | | FY 23 Rev A-Scott Rd Build Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| EVR | EDM | 550 | 8,245 | $2,467 | 550 | 8,245 | $2,467 |
| EVR | SEA | 12,340 | 407,234 | $94,186 | 12,340 | 407,234 | $94,186 |
| EVR | TUK | 4,228 | 202,932 | $42,996 | 4,228 | 202,932 | $42,996 |
| EVR | TAC | 8,051 | 587,710 | $105,023 | 8,051 | 587,710 | $105,023 |
| EVR | OLW | 10,423 | 1,094,419 | $174,325 | 10,423 | 1,094,419 | $174,325 |
| EVR | CTL | 3,417 | 433,985 | $65,798 | 3,417 | 433,985 | $65,798 |
| EVR | KEL | 4,040 | 686,816 | $97,770 | 4,040 | 686,816 | $97,770 |
| EVR | VAN | 7,486 | 1,564,664 | $214,748 | 7,486 | 1,564,664 | $214,748 |
| EVR | PDX | 20,775 | 4,549,802 | $619,833 | 20,775 | 4,549,802 | $619,833 |
| EVR | SLM | 3,249 | 883,671 | $116,729 | 3,249 | 883,671 | $116,729 |
| EVR | ALY | 1,949 | 584,571 | $76,286 | 1,949 | 584,571 | $76,286 |
| EVR | EUG | 3,959 | 1,358,097 | $174,593 | 3,959 | 1,358,097 | $174,593 |
| EDM | SEA | 6,130 | 110,337 | $38,937 | 6,130 | 110,337 | $38,937 |
| EDM | TUK | 1,914 | 63,146 | $16,160 | 1,914 | 63,146 | $16,160 |
| EDM | TAC | 4,718 | 273,660 | $53,411 | 4,718 | 273,660 | $53,411 |
| EDM | OLW | 1,718 | 154,622 | $25,770 | 1,718 | 154,622 | $25,770 |
| EDM | CTL | 1,402 | 156,968 | $24,568 | 1,402 | 156,968 | $24,568 |
| EDM | KEL | 2,314 | 358,685 | $52,009 | 2,314 | 358,685 | $52,009 |
| EDM | VAN | 15,723 | 3,050,239 | $423,889 | 15,723 | 3,050,239 | $423,889 |
| EDM | PDX | 45,145 | 9,209,502 | $1,269,015 | 45,145 | 9,209,502 | $1,269,015 |
| EDM | SLM | 9,577 | 2,461,391 | $327,595 | 9,577 | 2,461,391 | $327,595 |
| EDM | ALY | 5,732 | 1,633,560 | $214,512 | 5,732 | 1,633,560 | $214,512 |
| EDM | EUG | 11,562 | 3,792,210 | $489,866 | 11,562 | 3,792,210 | $489,866 |
| SEA | TUK | 250 | 3,750 | $1,662 | 250 | 3,750 | $1,662 |
| SEA | TAC | 23,337 | 933,489 | $224,172 | 23,337 | 933,489 | $224,172 |
| SEA | OLW | 64,155 | 4,619,156 | $805,742 | 64,155 | 4,619,156 | $805,742 |
| SEA | CTL | 34,031 | 3,198,873 | $565,183 | 34,031 | 3,198,873 | $565,183 |
| SEA | KEL | 64,751 | 8,870,932 | $1,333,798 | 64,751 | 8,870,932 | $1,333,798 |
| SEA | VAN | 153,652 | 27,042,827 | $3,946,167 | 153,652 | 27,042,827 | $3,946,167 |
| SEA | PDX | 864,187 | 160,738,779 | $23,897,540 | 864,187 | 160,738,779 | $23,897,540 |
| SEA | SLM | 36,780 | 8,790,458 | $1,150,175 | 36,780 | 8,790,458 | $1,150,175 |
| SEA | ALY | 23,716 | 6,332,069 | $820,521 | 23,716 | 6,332,069 | $820,521 |
| SEA | EUG | 52,929 | 16,407,876 | $2,034,577 | 52,929 | 16,407,876 | $2,034,577 |
| TUK | TAC | 204 | 5,106 | $1,974 | 204 | 5,106 | $1,974 |
| TUK | OLW | 685 | 39,054 | $9,338 | 685 | 39,054 | $9,338 |
| TUK | CTL | 1,041 | 82,271 | $17,641 | 1,041 | 82,271 | $17,641 |
| TUK | KEL | 1,780 | 217,174 | $40,446 | 1,780 | 217,174 | $40,446 |
| TUK | VAN | 5,633 | 906,966 | $138,935 | 5,633 | 906,966 | $138,935 |
| TUK | PDX | 21,759 | 3,720,741 | $584,508 | 21,759 | 3,720,741 | $584,508 |
| TUK | SLM | 548 | 122,646 | $16,180 | 548 | 122,646 | $16,180 |
| TUK | ALY | 545 | 137,400 | $17,726 | 545 | 137,400 | $17,726 |
| TUK | EUG | 685 | 202,015 | $28,059 | 685 | 202,015 | $28,059 |

## Station Pair Summary - Continued

| Station Pairs | | FY 23 Rev A Build Estimate | | | FY 23 Rev A-Scott Rd Build Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| TAC | OLW | 7,123 | 227,951 | $32,164 | 7,123 | 227,951 | $32,164 |
| TAC | CTL | 10,132 | 547,153 | $101,466 | 10,132 | 547,153 | $101,466 |
| TAC | KEL | 13,060 | 1,266,812 | $236,135 | 13,060 | 1,266,812 | $236,135 |
| TAC | VAN | 53,173 | 7,231,565 | $1,044,963 | 53,173 | 7,231,565 | $1,044,963 |
| TAC | PDX | 239,145 | 34,915,136 | $5,028,428 | 239,145 | 34,915,136 | $5,028,428 |
| TAC | SLM | 10,695 | 2,128,324 | $285,950 | 10,695 | 2,128,324 | $285,950 |
| TAC | ALY | 5,830 | 1,323,397 | $171,147 | 5,830 | 1,323,397 | $171,147 |
| TAC | EUG | 10,206 | 2,755,593 | $366,042 | 10,206 | 2,755,593 | $366,042 |
| OLW | CTL | 1,437 | 31,609 | $10,761 | 1,437 | 31,609 | $10,761 |
| OLW | KEL | 2,882 | 187,333 | $29,625 | 2,882 | 187,333 | $29,625 |
| OLW | VAN | 14,815 | 1,540,772 | $197,147 | 14,815 | 1,540,772 | $197,147 |
| OLW | PDX | 59,782 | 6,815,202 | $1,087,468 | 59,782 | 6,815,202 | $1,087,468 |
| OLW | SLM | 3,721 | 621,325 | $82,917 | 3,721 | 621,325 | $82,917 |
| OLW | ALY | 2,558 | 498,773 | $66,689 | 2,558 | 498,773 | $66,689 |
| OLW | EUG | 5,219 | 1,242,097 | $155,228 | 5,219 | 1,242,097 | $155,228 |
| CTL | KEL | 829 | 35,663 | $8,701 | 829 | 35,663 | $8,701 |
| CTL | VAN | 1,800 | 147,606 | $27,981 | 1,800 | 147,606 | $27,981 |
| CTL | PDX | 13,687 | 1,259,238 | $219,941 | 13,687 | 1,259,238 | $219,941 |
| CTL | SLM | 1,280 | 185,670 | $26,451 | 1,280 | 185,670 | $26,451 |
| CTL | ALY | 856 | 148,163 | $19,781 | 856 | 148,163 | $19,781 |
| CTL | EUG | 1,680 | 362,783 | $46,060 | 1,680 | 362,783 | $46,060 |
| KEL | VAN | 1,349 | 52,615 | $15,239 | 1,349 | 52,615 | $15,239 |
| KEL | PDX | 9,232 | 452,355 | $112,432 | 9,232 | 452,355 | $112,432 |
| KEL | SLM | 1,127 | 114,944 | $16,769 | 1,127 | 114,944 | $16,769 |
| KEL | ALY | 752 | 97,788 | $15,444 | 752 | 97,788 | $15,444 |
| KEL | EUG | 2,148 | 371,598 | $49,877 | 2,148 | 371,598 | $49,877 |
| VAN | PDX | 3,519 | 35,193 | $22,492 | 3,519 | 35,193 | $22,492 |
| VAN | SLM | 861 | 54,248 | $10,471 | 861 | 54,248 | $10,471 |
| VAN | ALY | 839 | 76,378 | $13,180 | 839 | 76,378 | $13,180 |
| VAN | EUG | 2,244 | 300,646 | $45,073 | 2,244 | 300,646 | $45,073 |
| PDX | SLM | 44,755 | 2,372,025 | $328,539 | 44,755 | 2,372,025 | $328,539 |
| PDX | ALY | 27,015 | 2,188,227 | $282,798 | 27,015 | 2,188,227 | $282,798 |
| PDX | EUG | 103,380 | 12,819,145 | $1,711,561 | 103,380 | 12,819,145 | $1,711,561 |
| SLM | ALY | 1,668 | 46,690 | $8,187 | 1,668 | 46,690 | $8,187 |
| SLM | EUG | 8,599 | 610,554 | $76,366 | 8,599 | 610,554 | $76,366 |
| ALY | EUG | 1,086 | 46,704 | $9,819 | 1,086 | 46,704 | $9,819 |
| **Total** | | **3,397,787** | **520,804,411** | **$79,063,634** | **3,488,871** | **531,799,576** | **$80,985,262** |

## Station Pair Summary - Continued

| Station Pairs | | FY 08- Fare Increase Estimate | | | FY 23 Rev A Fare Incr. Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| VAC | BEL | 11,734 | 680,567 | $186,350 | 47,467 | 2,753,062 | $895,173 |
| VAC | MVW | 9,099 | 764,292 | $179,264 | 30,355 | 2,549,828 | $710,196 |
| VAC | EVR | 18,967 | 2,332,924 | $485,602 | 63,277 | 7,783,095 | $1,923,828 |
| VAC | EDM | 29,533 | 4,075,608 | $860,856 | 77,291 | 10,666,161 | $2,675,345 |
| VAC | SEA | 167,349 | 26,106,416 | $5,447,879 | 437,216 | 68,205,686 | $16,901,855 |
| VAC | TUK | 12,067 | 2,063,442 | $361,116 | 53,135 | 9,086,003 | $1,888,258 |
| VAC | TAC | 792 | 155,262 | $26,509 | 2,744 | 537,824 | $109,045 |
| VAC | OLW | 184 | 41,923 | $6,986 | 624 | 142,253 | $28,150 |
| VAC | CTL | 100 | 24,939 | $4,101 | 286 | 71,419 | $13,945 |
| VAC | KEL | 43 | 12,477 | $2,010 | 132 | 38,660 | $7,395 |
| VAC | VAN | 169 | 56,087 | $8,905 | 499 | 165,762 | $31,254 |
| VAC | PDX | 1,031 | 352,531 | $55,796 | 2,927 | 1,001,089 | $188,153 |
| VAC | SLM | 66 | 26,084 | $4,070 | 142 | 56,169 | $10,407 |
| VAC | ALY | 38 | 16,037 | $2,487 | 89 | 37,455 | $6,897 |
| VAC | EUG | 75 | 35,048 | $5,391 | 142 | 66,265 | $12,104 |
| BEL | MVW | 721 | 18,738 | $7,162 | 1,571 | 40,844 | $18,540 |
| BEL | EVR | 2,145 | 139,431 | $33,230 | 4,712 | 306,298 | $86,687 |
| BEL | EDM | 7,758 | 620,616 | $134,409 | 15,635 | 1,250,798 | $321,681 |
| BEL | SEA | 55,406 | 5,429,758 | $1,114,118 | 113,870 | 11,159,212 | $2,719,054 |
| BEL | TUK | 11,443 | 1,293,074 | $248,510 | 36,001 | 4,068,116 | $928,425 |
| BEL | TAC | 4,971 | 685,939 | $125,534 | 11,628 | 1,604,637 | $348,727 |
| BEL | OLW | 1,989 | 338,211 | $59,256 | 4,888 | 830,876 | $172,867 |
| BEL | CTL | 679 | 130,393 | $22,342 | 1,510 | 289,971 | $59,001 |
| BEL | KEL | 589 | 138,497 | $22,975 | 1,475 | 346,620 | $68,283 |
| BEL | VAN | 414 | 113,453 | $18,428 | 986 | 270,039 | $52,085 |
| BEL | PDX | 3,640 | 1,033,812 | $167,157 | 8,676 | 2,463,862 | $473,079 |
| BEL | SLM | 225 | 75,663 | $11,994 | 1,111 | 374,518 | $70,501 |
| BEL | ALY | 129 | 46,930 | $7,378 | 651 | 237,484 | $44,338 |
| BEL | EUG | 269 | 109,706 | $17,067 | 1,404 | 572,800 | $105,816 |
| MVW | EVR | 416 | 16,228 | $4,874 | 620 | 24,189 | $8,627 |
| MVW | EDM | 821 | 44,349 | $9,236 | 1,248 | 67,415 | $16,673 |
| MVW | SEA | 19,115 | 1,376,283 | $270,483 | 29,812 | 2,146,486 | $500,949 |
| MVW | TUK | 5,201 | 452,478 | $93,808 | 10,275 | 893,963 | $220,088 |
| MVW | TAC | 7,092 | 794,250 | $153,002 | 11,616 | 1,300,945 | $297,600 |
| MVW | OLW | 1,254 | 180,628 | $32,745 | 2,867 | 412,904 | $88,887 |
| MVW | CTL | 1,213 | 201,279 | $35,428 | 2,609 | 433,071 | $90,520 |
| MVW | KEL | 449 | 93,873 | $15,857 | 1,065 | 222,553 | $44,643 |
| MVW | VAN | 638 | 158,230 | $26,047 | 1,567 | 388,680 | $75,979 |
| MVW | PDX | 2,212 | 570,798 | $93,452 | 5,086 | 1,312,212 | $255,118 |
| MVW | SLM | 143 | 44,350 | $7,093 | 704 | 218,948 | $41,585 |
| MVW | ALY | 82 | 27,695 | $4,387 | 410 | 138,953 | $26,140 |
| MVW | EUG | 171 | 65,303 | $10,221 | 883 | 337,156 | $62,666 |

## Station Pair Summary - Continued

| Station Pairs | | FY 08- Fare Increase Estimate | | | FY 23 Rev A Fare Incr. Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| EVR | EDM | 331 | 4,970 | $1,830 | 471 | 7,068 | $3,091 |
| EVR | SEA | 7,240 | 238,918 | $68,009 | 10,579 | 349,113 | $118,009 |
| EVR | TUK | 2,202 | 105,684 | $27,559 | 3,624 | 173,969 | $53,872 |
| EVR | TAC | 4,148 | 302,817 | $66,600 | 6,222 | 454,175 | $118,619 |
| EVR | OLW | 3,625 | 380,597 | $74,614 | 7,647 | 802,984 | $186,937 |
| EVR | CTL | 1,307 | 165,930 | $30,963 | 2,613 | 331,799 | $73,523 |
| EVR | KEL | 1,349 | 229,279 | $40,170 | 3,007 | 511,181 | $106,353 |
| EVR | VAN | 2,652 | 554,350 | $93,642 | 5,699 | 1,191,162 | $238,941 |
| EVR | PDX | 7,670 | 1,679,819 | $281,657 | 16,401 | 3,591,835 | $715,169 |
| EVR | SLM | 488 | 132,727 | $21,579 | 2,462 | 669,558 | $129,267 |
| EVR | ALY | 284 | 85,210 | $13,686 | 1,435 | 430,391 | $82,089 |
| EVR | EUG | 592 | 203,053 | $32,128 | 3,042 | 1,043,248 | $196,017 |
| EDM | SEA | 3,885 | 69,922 | $30,369 | 5,548 | 99,869 | $51,509 |
| EDM | TUK | 1,098 | 36,226 | $11,410 | 1,732 | 57,156 | $21,378 |
| EDM | TAC | 2,272 | 131,799 | $31,660 | 4,051 | 234,937 | $67,016 |
| EDM | OLW | 491 | 44,205 | $9,068 | 1,441 | 129,686 | $31,590 |
| EDM | CTL | 370 | 41,409 | $7,977 | 1,149 | 128,680 | $29,437 |
| EDM | KEL | 545 | 84,551 | $15,089 | 1,897 | 294,045 | $62,315 |
| EDM | VAN | 2,624 | 508,973 | $87,054 | 13,720 | 2,661,592 | $540,592 |
| EDM | PDX | 11,786 | 2,404,383 | $407,766 | 39,393 | 8,036,070 | $1,618,395 |
| EDM | SLM | 661 | 169,766 | $27,809 | 8,020 | 2,061,115 | $400,930 |
| EDM | ALY | 394 | 112,391 | $18,165 | 4,800 | 1,367,908 | $262,533 |
| EDM | EUG | 810 | 265,629 | $42,231 | 9,681 | 3,175,514 | $599,527 |
| SEA | TUK | 156 | 2,334 | $1,274 | 226 | 3,394 | $2,199 |
| SEA | TAC | 13,161 | 526,452 | $155,600 | 20,035 | 801,399 | $281,275 |
| SEA | OLW | 29,890 | 2,152,110 | $462,035 | 53,809 | 3,874,215 | $987,705 |
| SEA | CTL | 14,898 | 1,400,458 | $304,536 | 27,898 | 2,622,392 | $677,174 |
| SEA | KEL | 28,615 | 3,920,189 | $725,445 | 53,082 | 7,272,268 | $1,598,089 |
| SEA | VAN | 72,736 | 12,801,602 | $2,299,134 | 134,075 | 23,597,157 | $5,032,610 |
| SEA | PDX | 405,319 | 75,389,309 | $13,794,912 | 754,076 | 140,258,195 | $30,476,916 |
| SEA | SLM | 13,026 | 3,113,153 | $501,337 | 30,799 | 7,360,937 | $1,407,653 |
| SEA | ALY | 8,163 | 2,179,410 | $347,584 | 19,859 | 5,302,336 | $1,004,203 |
| SEA | EUG | 17,759 | 5,505,272 | $840,190 | 44,321 | 13,739,597 | $2,490,039 |
| TUK | TAC | 116 | 2,893 | $1,376 | 175 | 4,383 | $2,477 |
| TUK | OLW | 319 | 18,211 | $5,359 | 575 | 32,756 | $11,447 |
| TUK | CTL | 455 | 35,957 | $9,490 | 854 | 67,444 | $21,137 |
| TUK | KEL | 775 | 94,599 | $21,684 | 1,459 | 178,037 | $48,461 |
| TUK | VAN | 2,621 | 421,943 | $79,552 | 4,916 | 791,404 | $177,186 |
| TUK | PDX | 10,064 | 1,721,006 | $332,751 | 18,986 | 3,246,662 | $745,432 |
| TUK | SLM | 124 | 27,665 | $4,492 | 458 | 102,701 | $19,803 |
| TUK | ALY | 117 | 29,457 | $4,677 | 457 | 115,056 | $21,694 |
| TUK | EUG | 133 | 39,157 | $6,694 | 573 | 169,163 | $34,341 |

## Station Pair Summary - Continued

| Station Pairs | | FY 08- Fare Increase Estimate | | | FY 23 Rev A Fare Incr. Estimate | | |
|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| TAC | OLW | 3,874 | 123,963 | $21,528 | 6,507 | 208,220 | $42,941 |
| TAC | CTL | 4,308 | 232,654 | $53,101 | 7,823 | 422,439 | $114,495 |
| TAC | KEL | 5,580 | 541,230 | $124,167 | 10,083 | 978,065 | $266,457 |
| TAC | VAN | 21,978 | 2,989,003 | $531,584 | 44,049 | 5,990,636 | $1,265,178 |
| TAC | PDX | 97,700 | 14,264,254 | $2,528,391 | 198,108 | 28,923,736 | $6,088,119 |
| TAC | SLM | 3,006 | 598,146 | $98,909 | 8,226 | 1,636,934 | $321,435 |
| TAC | ALY | 1,589 | 360,606 | $57,397 | 4,484 | 1,017,850 | $192,386 |
| TAC | EUG | 2,715 | 732,932 | $119,828 | 7,850 | 2,119,378 | $411,467 |
| OLW | CTL | 709 | 15,607 | $6,539 | 1,180 | 25,951 | $12,912 |
| OLW | KEL | 1,430 | 92,972 | $18,096 | 2,366 | 153,799 | $35,547 |
| OLW | VAN | 6,352 | 660,622 | $104,035 | 11,919 | 1,239,541 | $231,805 |
| OLW | PDX | 25,297 | 2,883,877 | $566,358 | 48,095 | 5,482,783 | $1,278,642 |
| OLW | SLM | 951 | 158,736 | $26,072 | 2,953 | 493,116 | $96,180 |
| OLW | ALY | 632 | 123,278 | $20,287 | 2,030 | 395,852 | $77,356 |
| OLW | EUG | 1,255 | 298,704 | $45,944 | 4,142 | 985,794 | $180,058 |
| CTL | KEL | 428 | 18,400 | $5,525 | 646 | 27,778 | $9,906 |
| CTL | VAN | 823 | 67,509 | $15,751 | 1,381 | 113,232 | $31,372 |
| CTL | PDX | 6,180 | 568,528 | $122,216 | 10,500 | 965,992 | $246,594 |
| CTL | SLM | 289 | 41,894 | $7,346 | 985 | 142,896 | $29,753 |
| CTL | ALY | 187 | 32,268 | $5,302 | 659 | 114,030 | $22,250 |
| CTL | EUG | 354 | 76,518 | $11,957 | 1,293 | 279,206 | $51,809 |
| KEL | VAN | 617 | 24,052 | $8,573 | 1,035 | 40,362 | $17,085 |
| KEL | PDX | 4,167 | 204,169 | $62,457 | 7,082 | 347,012 | $126,057 |
| KEL | SLM | 249 | 25,349 | $4,552 | 867 | 88,464 | $18,863 |
| KEL | ALY | 160 | 20,753 | $4,034 | 579 | 75,259 | $17,372 |
| KEL | EUG | 439 | 75,872 | $12,534 | 1,653 | 285,990 | $56,104 |
| VAN | PDX | 2,075 | 20,755 | $16,325 | 3,102 | 31,023 | $28,978 |
| VAN | SLM | 305 | 19,213 | $4,564 | 717 | 45,199 | $12,751 |
| VAN | ALY | 285 | 25,937 | $5,509 | 699 | 63,638 | $16,051 |
| VAN | EUG | 730 | 97,840 | $18,053 | 1,869 | 250,501 | $54,888 |
| PDX | SLM | 16,376 | 867,907 | $147,951 | 37,290 | 1,976,387 | $400,083 |
| PDX | ALY | 9,505 | 769,919 | $122,463 | 22,509 | 1,823,246 | $344,381 |
| PDX | EUG | 35,522 | 4,404,734 | $723,818 | 86,137 | 10,681,000 | $2,084,277 |
| SLM | ALY | 964 | 26,983 | $5,823 | 1,475 | 41,301 | $10,584 |
| SLM | EUG | 3,258 | 231,350 | $35,614 | 7,097 | 503,870 | $92,109 |
| ALY | EUG | 530 | 22,776 | $5,893 | 877 | 37,720 | $11,590 |
| | **Total** | **1,316,517** | **199,996,699** | **$37,391,168** | **2,858,737** | **440,225,034** | **$97,645,348** |

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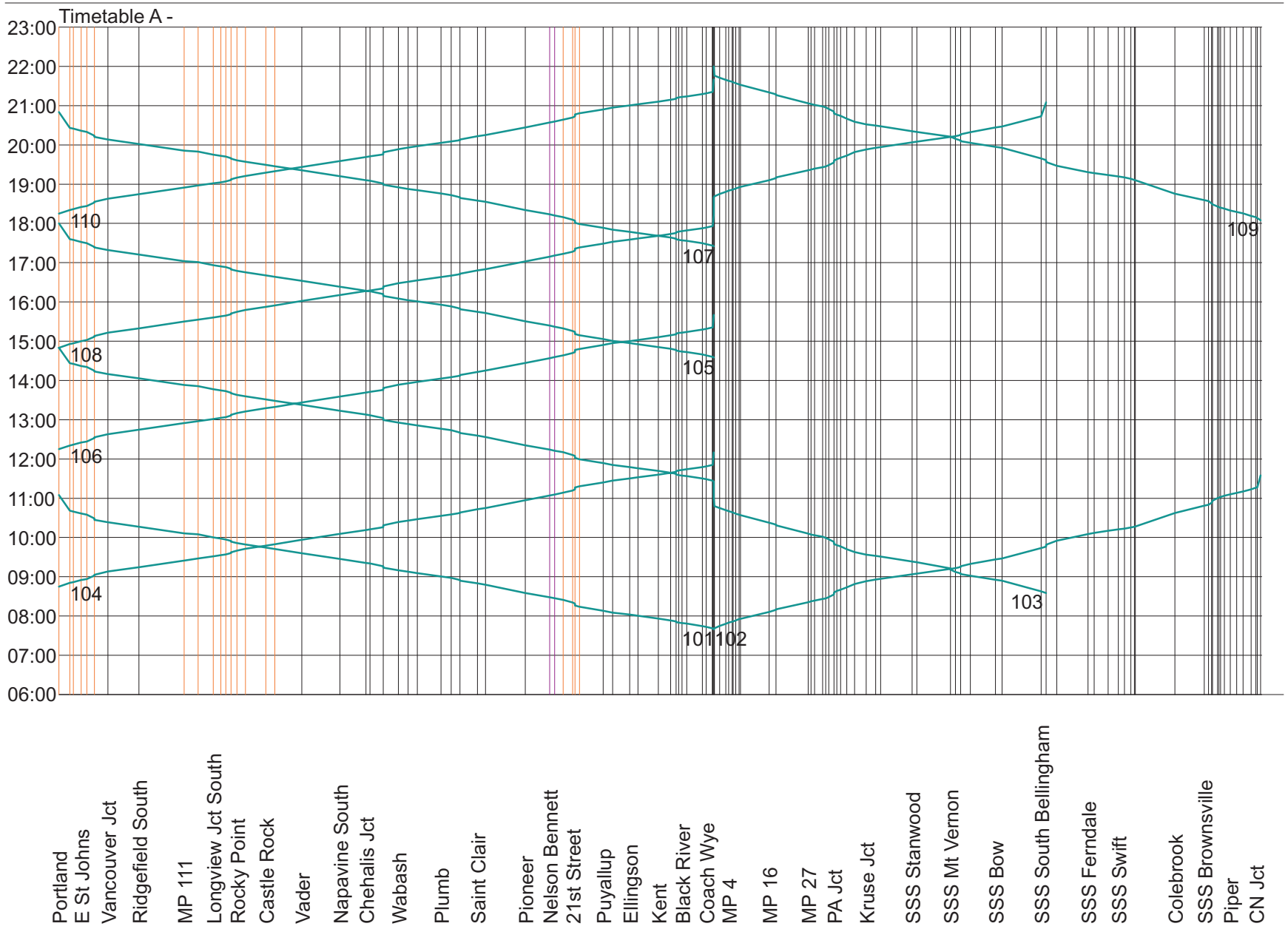
# Appendix C: Timetables and Crew/Equipment Plans

| SOUTHWARD TRAINS | | | | | TIMETABLE A | NORTHWARD TRAINS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **109** | **107** | **105** | **103** | **101** | Example Train Numbers | **102** | **104** | **106** | **108** | **110** |
| **6:05 P** | | | | | Vancouver BC ▲ | 11:35 A | | | | |
| **7:37 P** | | | 8:35 A | | Bellingham | 9:49 A | | | **9:05 P** | |
| **8:07 P** | | | 9:05 A | | Mt Vernon | 9:16 A | | | **8:16 P** | |
| **8:51 P** | | | 9:53 A | | Everett | 8:36 A | | | **7:36 P** | |
| **9:18 P** | | | 10:19 A | | Edmonds | 8:10 A | | | **7:10 P** | |
| **10:00 P** | | | 11:00 A | | Seattle | 7:40 A | | | **6:40 P** | |
| | **5:25 P** | **2:35 P** | 11:25 A | 7:40 A | | | **12:10 P** | **3:40 P** | **6:15 P** | **9:40 P** |
| | **5:36 P** | **2:46 P** | 11:37 A | 7:51 A | Tukwila | | 11:41 A | **3:11 P** | **5:46 P** | **9:11 P** |
| | **6:03 P** | **3:13 P** | **12:04 P** | 8:18 A | Tacoma | | 11:16 A | **2:46 P** | **5:21 P** | **8:46 P** |
| | **6:40 P** | **3:50 P** | **12:40 P** | 8:55 A | Centennial | | 10:38 A | **2:08 P** | **4:43 P** | **8:08 P** |
| | **7:01 P** | **4:12 P** | **1:02 P** | 9:16 A | Centralia | | 10:18 A | **1:48 P** | **4:23 P** | **7:48 P** |
| | **7:39 P** | **4:50 P** | **1:41 P** | 9:54 A | Kelso | | 9:37 A | **1:07 P** | **3:42 P** | **7:07 P** |
| | **8:14 P** | **5:24 P** | **2:14 P** | 10:29 A | Vancouver ▼ | | 9:03 A | **12:33 P** | **3:08 P** | **6:33 P** |
| | **8:50 P** | **6:00 P** | **2:50 P** | 11:05 A | Portland | | 8:45 A | **12:15 P** | **2:50 P** | **6:15 P** |


Timetable A -
23:00
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
13:00
12:00
11:00
10:00
09:00
08:00
07:00
06:00
110
108
106
104
107
105
101
102
103
109
Portland
E St Johns
Vancouver Jct
Ridgefield South
MP 111
Longview Jct South
Rocky Point
Castle Rock
Vader
Napavine South
Chehalis Jct
Wabash
Plumb
Saint Clair
Pioneer
Nelson Bennett
21st Street
Puyallup
Ellingson
Kent
Black River
Coach Wye
MP 4
MP 16
MP 27
PA Jct
Kruse Jct
SSS Stanwood
SSS Mt Vernon
SSS Bow
SSS South Bellingham
SSS Ferndale
SSS Swift
Colebrook
SSS Brownsville
Piper
CN Jct

Crew Plan
Timetable A

| Assignment | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
|---|---|---|---|---|---|---|
| SEATTLE - PORTLAND | | | | | | |
| SP1 | 7:10 | 22:10 | **15:00** | 101 | *5:30* | 110 |
| SP2 | 16:55 | 21:20 | **4:25** | 107 | | |
| SP3 = SP2 return | 11:45 | 16:10 | **4:25** | 106 | | |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| SEATTLE - VANCOUVER | | | | | | |
| SV1 | 7:10 | 22:30 | **15:20** | 102 | *7:30* | 109 |
| PORTLAND - SEATTLE | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PS1 | 8:15 | 18:30 | **10:15** | 104 | *2:15* | 105 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PORTLAND - BELLINGHAM | | | | | | |
| PV1 | 14:20 | 21:35 | **7:15** | 108 | | |
| PV2 = PV1 return | 8:05 | 15:20 | **7:15** | 103 | | |

First named station is crew headquarters

Equipment Plan
Timetable A

| Equipment Asgnmt | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Train | **101** | | **106** | | **107** | | | | | | | |
| | Miles | 187 | | 187 | | 187 | | | | | 561 | Miles | |
| | Time in Service | 3:25 | | 3:25 | | 3:25 | | | | | 10:15 | Time in Service | 78% Schedule Day |
| | Layover Time | | 1:10 | | 1:45 | | | | | | 2:55 | Layover Time | 22% Schedule Day |
| | | Seattle | 7:40 | | | | | | Portland | 20:50 | 13:10 | Total Time | 55% Calendar Day |
| 2 | Train | **103** | | **110** | | | | | | | | | |
| | Miles | 283 | | 187 | | | | | | | 470 | Miles | |
| | Time in Service | 6:15 | | 3:25 | | | | | | | 9:40 | Time in Service | 74% Schedule Day |
| | Layover Time | | 3:25 | | | | | | | | 3:25 | Layover Time | 26% Schedule Day |
| | | Bellingham | 8:35 | | | | | | Seattle | 21:40 | 13:05 | Total Time | 55% Calendar Day |
| 3 | Train | **104** | | **105** | | | | | | | | | |
| | Miles | 187 | | 187 | | | | | | | 374 | Miles | |
| | Time in Service | 3:25 | | 3:25 | | | | | | | 6:50 | Time in Service | 74% Schedule Day |
| | Layover Time | | 2:25 | | | | | | | | 2:25 | Layover Time | 26% Schedule Day |
| | | Portland | 8:45 | | | | | | Portland | 18:00 | 9:15 | Total Time | 39% Calendar Day |
| 4 | Train | **108** | | | | | | | | | | | |
| | Miles | 283 | | | | | | | | | 283 | Miles | |
| | Time in Service | 6:15 | | | | | | | | | 6:15 | Time in Service | 100% Schedule Day |
| | Layover Time | | | | | | | | | | 0:00 | Layover Time | 0% Schedule Day |
| | | Portland | 14:50 | | | | | | Bellingham | 21:05 | 6:15 | Total Time | 26% Calendar Day |
| 5 | Train | **102** | | **109** | | | | | | | | | |
| | Miles | 156 | | 156 | | | | | | | 312 | Miles | |
| | Time in Service | 3:55 | | 3:55 | | | | | | | 7:50 | Time in Service | 55% Schedule Day |
| | Layover Time | | 6:30 | | | | | | | | 6:30 | Layover Time | 45% Schedule Day |
| | | Seattle | 7:40 | | | | | | Seattle | 22:00 | 14:20 | Total Time | 60% Calendar Day |

One equipment set required for each assignment

Terminating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Arrive | Asgnmt | Arrive |
| 2 | 21:40 | 3 | 17:25 |
| | | 1 | 20:50 |
| | | | |
| 5 | 21:55 | | |
| | | | |

Originating Equipment

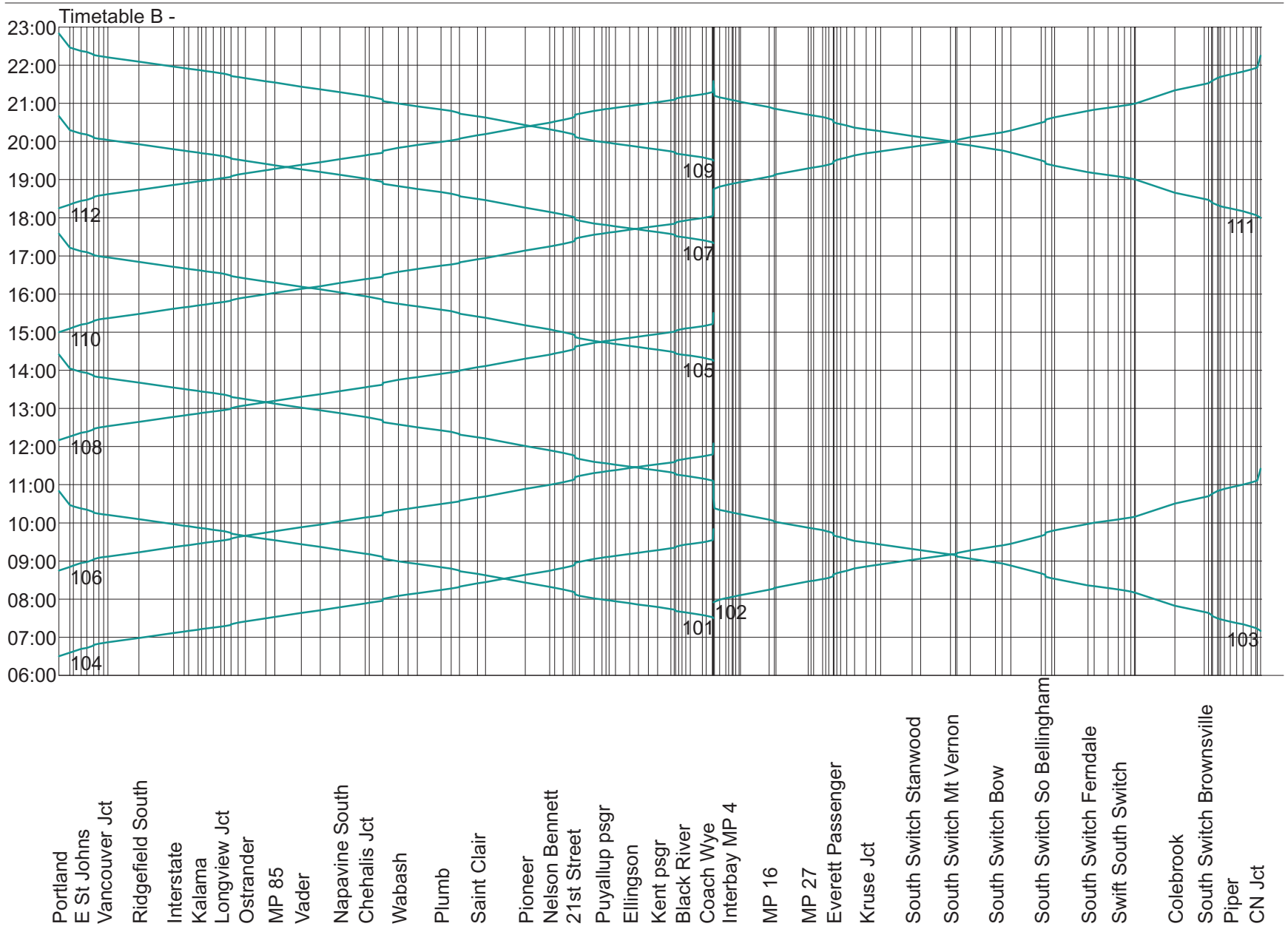
| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Leave | Asgnmt | Leave |
| 1 | 7:40 | 3 | 8:45 |
| | | 4 | 14:45 |
| | | | |
| 5 | 7:45 | | |
| | | | |

Equipment Rotation

| Originate | Asgnmt | Miles | Seattle-Seattle Miles | Seatle time |
|---|---|---|---|---|
| Seattle | 1 | 561 | | |
| Portland | 3 | 374 | | |
| Portland | 4 | 283 | | |
| Bellingham | 2 | 470 | 1688 | 10:00 |
| | | | | |
| | | | | |
| Seattle | 5 | 312 | 312 | 9:50 |
| | | | | |
| | | | | |

Each set works assignments in top to bottom order then repeats the cycle.

| SOUTHWARD TRAINS | | | | | | TIMETABLE B | NORTHWARD TRAINS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **109** | **111** | **107** | **105** | **101** | **103** | Example Train Numbers | **104** | **102** | **106** | **108** | **110** | **112** |
| | **6:00 P** | | | | 7:10 A | Vancouver BC | | 11:25 A | | | **10:15 P** | |
| | **7:28 P** | | | | 8:38 A | Bellingham | | 9:44 A | | | **8:34 P** | |
| | **7:57 P** | | | | 9:07 A | Mt Vernon | | 9:12 A | | | **8:02 P** | |
| | **8:33 P** | | | | 9:43 A | Everett | | 8:39 A | | | **7:29 P** | |
| | **8:52 P** | | | | 10:02 A | Edmonds | | 8:17 A | | | **7:07 P** | |
| | **9:30 P** | | | | 10:40 A | Seattle | | 7:55 A | | | **6:45 P** | |
| **7:30 P** | | **5:20 P** | **2:15 P** | 7:30 A | 11:05 A | | 9:50 A | | **12:05 P** | **3:30 P** | **6:20 P** | **9:35 P** |
| **7:42 P** | | **5:32 P** | **2:27 P** | 7:42 A | 11:17 A | Tukwila | 9:22 A | | 11:37 A | **3:02 P** | **5:52 P** | **9:07 P** |
| **8:10 P** | | **6:00 P** | **2:55 P** | 8:10 A | 11:45 A | Tacoma | 8:57 A | | 11:12 A | **2:37 P** | **5:27 P** | **8:42 P** |
| **8:44 P** | | **6:34 P** | **3:29 P** | 8:44 A | **12:19 P** | Centennial | 8:19 A | | 10:34 A | **1:59 P** | **4:49 P** | **8:04 P** |
| **9:06 P** | | **6:56 P** | **3:51 P** | 9:06 A | **12:41 P** | Centralia | 8:00 A | | 10:15 A | **1:40 P** | **4:30 P** | **7:45 P** |
| **9:44 P** | | **7:34 P** | **4:29 P** | 9:44 A | **1:19 P** | Kelso | 7:20 A | | 9:35 A | **1:00 P** | **3:50 P** | **7:05 P** |
| **10:16 P** | | **8:06 P** | **5:01 P** | 10:16 A | **1:51 P** | Vancouver | 6:47 A | | 9:02 A | **12:27 P** | **3:17 P** | **6:32 P** |
| **10:50 P** | | **8:40 P** | **5:35 P** | 10:50 A | **2:25 P** | Portland | 6:30 A | | 8:45 A | **12:10 P** | **3:00 P** | **6:15 P** |


Timetable B -
23:00
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
13:00
12:00
11:00
10:00
09:00
08:00
07:00
06:00
112
110
108
106
104
109
107
105
101
102
111
103
Portland
E St Johns
Vancouver Jct
Ridgefield South
Interstate
Kalama
Longview Jct
Ostrander
MP 85
Vader
Napavine South
Chehalis Jct
Wabash
Plumb
Saint Clair
Pioneer
Nelson Bennett
21st Street
Puyallup psgr
Ellingson
Kent psgr
Black River
Coach Wye
Interbay MP 4
MP 16
MP 27
Everett Passenger
Kruse Jct
South Switch Stanwood
South Switch Mt Vernon
South Switch Bow
South Switch So Bellingham
South Switch Ferndale
Swift South Switch
Colebrook
South Switch Brownsville
Piper
CN Jct

Crew Plan
Timetable B

| Assignment | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
|---|---|---|---|---|---|---|
| SEATTLE - PORTLAND | | | | | | |
| SP1 | 7:00 | 16:00 | **9:00** | 101 | *1:20* | 108 |
| SP2 | 13:45 | 22:05 | **8:20** | 105 | *0:40* | 112 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| SEATTLE - VANCOUVER | | | | | | |
| SV1 | 7:25 | 22:00 | **14:35** | 102 | *6:35* | 111 |
| SV2 | 18:15 | 22:45 | **4:30** | 110 | | |
| SV3 | 6:40 | 11:10 | **4:30** | 103 | | |
| PORTLAND - SEATTLE | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PS1 | 6:00 | 14:55 | **8:55** | 104 | *0:40* | 103 |
| PS2 | 8:15 | 21:10 | **12:55** | 106 | *5:15* | 107 |
| PS3 | 14:30 | 23:20 | **8:50** | 110 | *1:10* | 109 |

First named station is crew headquarters

Equipment Plan
Timetable B

| Equipment Asgnmt | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Train | **104** | | **109** | | | | | | | | | |
| | Miles | 187 | | 187 | | | | | | | 374 | Miles | |
| | Time in Service | 3:20 | | 3:20 | | | | | | | 6:40 | Time in Service | 41% Schedule Day |
| | Layover Time | | 9:30 | | | | | | | | 9:30 | Layover Time | 59% Schedule Day |
| | | Portland | 6:30 | | | | | | Portland | 22:50 | 16:10 | Total Time | 67% Calendar Day |
| 2 | Train | **106** | | **105** | | **112** | | | | | | | |
| | Miles | 187 | | 187 | | 187 | | | | | 561 | Miles | |
| | Time in Service | 3:20 | | 3:20 | | 3:20 | | | | | 10:00 | Time in Service | 78% Schedule Day |
| | Layover Time | | 2:10 | | 0:40 | | | | | | 2:50 | Layover Time | 22% Schedule Day |
| | | Portland | 8:45 | | | | | | Seattle | 21:35 | 12:50 | Total Time | 53% Calendar Day |
| 3 | Train | **101** | | **108** | | **107** | | | | | | | |
| | Miles | 187 | | 187 | | 187 | | | | | 561 | Miles | |
| | Time in Service | 3:20 | | 3:20 | | 3:20 | | | | | 10:00 | Time in Service | 76% Schedule Day |
| | Layover Time | | 1:20 | | 1:50 | | | | | | 3:10 | Layover Time | 24% Schedule Day |
| | | Seattle | 7:30 | | | | | | Portland | 20:40 | 13:10 | Total Time | 55% Calendar Day |
| 4 | Train | **103** | | | | | | | | | | | |
| | Miles | 343 | | | | | | | | | 343 | Miles | |
| | Time in Service | 7:15 | | | | | | | | | 7:15 | Time in Service | 100% Schedule Day |
| | Layover Time | | | | | | | | | | 0:00 | Layover Time | 0% Schedule Day |
| | | Vancouver | 7:10 | | | | | | Portland | 14:25 | 7:15 | Total Time | 30% Calendar Day |
| 5 | Train | **110** | | | | | | | | | | | |
| | Miles | 343 | | | | | | | | | 343 | Miles | |
| | Time in Service | 7:15 | | | | | | | | | 7:15 | Time in Service | 100% Schedule Day |
| | Layover Time | | | | | | | | | | 0:00 | Layover Time | 0% Schedule Day |
| | | Portland | 15:00 | | | | | | Vancouver | 22:15 | 7:15 | Total Time | 30% Calendar Day |
| 6 | Train | **102** | | **111** | | | | | | | | | |
| | Miles | 156 | | 156 | | | | | | | 312 | Miles | |
| | Time in Service | 3:20 | | 3:20 | | | | | | | 6:40 | Time in Service | 50% Schedule Day |
| | Layover Time | | 6:35 | | | | | | | | 6:35 | Layover Time | 50% Schedule Day |
| | | Seattle | 7:55 | | | | | | Seattle | 21:30 | 13:15 | Total Time | 55% Calendar Day |

One equipment set required for each assignment

Terminating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Arrive | Asgnmt | Arrive |
| 6 | 21:30 | 4 | 14:25 |
| 2 | 21:35 | 3 | 20:40 |
| | | 1 | 22:50 |
| | | | |
| 1 | 9:50 | | |

Originating Equipment

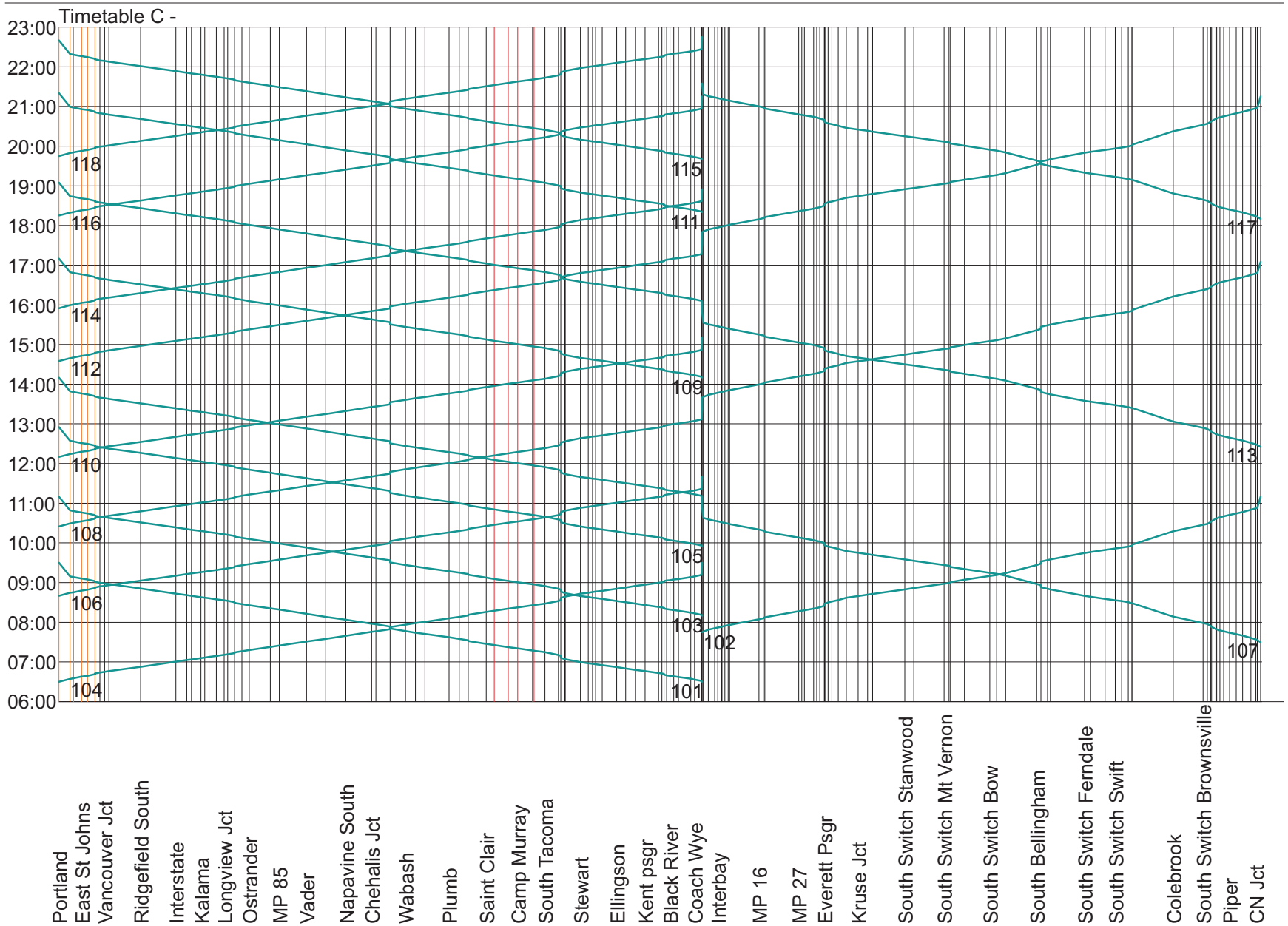
| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Leave | Asgnmt | Leave |
| 3 | 7:30 | 1 | 6:30 |
| 6 | 7:55 | 2 | 8:45 |
| | | 5 | 15:00 |
| | | | |
| 1 | 19:30 | | |

Equipment Rotation

| Originate | Asgnmt | Miles | Seattle-Seattle Miles | Seatle time |
|---|---|---|---|---|
| Seattle | 3 | 561 | | |
| Portland | 2 | 561 | 1122 | 9:55 |
| Seattle | 3 | 561 | | |
| Portland | 5 | 343 | | |
| Vancouver | 4 | 343 | | |
| Portland | 2 #1 | 187 | 1434 | 7:25 |
| Seattle | 1 #2 | 187 | | |
| Portland | 1 #1 | 187 | 374 | 9:30 |
| Seattle | 1 #2 | 187 | | |
| Portland | 1 #1 | 187 | 374 | 4:25 |
| Seattle | 2 #2&3 | 374 | 374 | 9:55 |
| | | | | |
| Complete cycle 8 days. | | | | |
| | | | | |
| Seattle | 6 | 312 | 312 | 10:25 |
| | | | | |

Each set works assignments in top to bottom order then repeats the cycle.

| SOUTHWARD TRAINS | | | | | | | | | TIMETABLE C | NORTHWARD TRAINS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115 | 111 | 117 | 109 | 113 | 105 | 103 | 107 | 101 | Example Train Numbers | 104 | 102 | 106 | 108 | 110 | 112 | 114 | 116 | 118 |
| | | 6:10 P | | 12:25 P | | | 7:30 A | | Vancouver BC ▲ | | 11:10 A | | 5:05 P | | 9:15 P | | | |
| | | 7:36 P | | 1:51 P | | | 8:56 A | | Bellingham | | 9:31 A | | 3:26 P | | 7:36 P | | | |
| | | 8:04 P | | 2:19 P | | | 9:24 A | | Mt Vernon | | 9:00 A | | 2:55 P | | 7:05 P | | | |
| | | 8:39 P | | 2:54 P | | | 9:59 A | | Everett | | 8:28 A | | 2:23 P | | 6:33 P | | | |
| | | 8:58 P | | 3:13 P | | | 10:18 A | | Edmonds | | 8:07 A | | 2:02 P | | 6:12 P | | | |
| | | 9:35 P | | 3:50 P | | | 10:55 A | | Seattle | | 7:45 A | | 1:40 P | | 5:50 P | | | |
| 7:40 P | 6:20 P | | 2:10 P | 4:05 P | 9:55 A | 8:10 A | 11:10 A | 6:30 A | | 9:30 A | | 11:40 A | 1:25 P | 3:10 P | 5:35 P | 6:55 P | 9:15 P | 10:45 P |
| 7:51 P | 6:31 P | | 2:21 P | 4:16 P | 10:06 A | 8:21 A | 11:21 A | 6:41 A | Tukwila | 9:01 A | | 11:11 A | 12:56 P | 2:41 P | 5:06 P | 6:26 P | 8:46 P | 10:16 P |
| 8:19 P | 6:59 P | | 2:49 P | 4:44 P | 10:34 A | 8:49 A | 11:49 A | 7:09 A | Tacoma | 8:36 A | | 10:46 A | 12:31 P | 2:16 P | 4:41 P | 6:01 P | 8:21 P | 9:51 P |
| 8:42 P | 7:22 P | | 3:12 P | 5:07 P | 10:57 A | 9:12 A | 12:12 P | 7:32 A | Centennial | 8:11 A | | 10:21 A | 12:06 P | 1:51 P | 4:16 P | 5:36 P | 7:56 P | 9:26 P |
| 9:03 P | 7:43 P | | 3:33 P | 5:28 P | 11:18 A | 9:33 A | 12:33 P | 7:53 A | Centralia | 7:52 A | | 10:02 A | 11:47 A | 1:32 P | 3:57 P | 5:17 P | 7:37 P | 9:07 P |
| 9:40 P | 8:20 P | | 4:10 P | 6:05 P | 11:55 A | 10:10 A | 1:10 P | 8:30 A | Kelso | 7:14 A | | 9:24 A | 11:09 A | 12:54 P | 3:19 P | 4:39 P | 6:59 P | 8:29 P |
| 10:12 P | 8:52 P | | 4:42 P | 6:37 P | 12:27 P | 10:42 A | 1:42 P | 9:02 A | Vancouver ▼ | 6:42 A | | 8:52 A | 10:37 A | 12:22 P | 2:47 P | 4:07 P | 6:27 P | 7:57 P |
| 10:40 P | 9:20 P | | 5:10 P | 7:05 P | 12:55 P | 11:10 A | 2:10 P | 9:30 A | Portland | 6:30 A | | 8:40 A | 10:25 A | 12:10 P | 2:35 P | 3:55 P | 6:15 P | 7:45 P |


Timetable C -
23:00
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
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12:00
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118
116
114
112
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108
106
104
115
111
109
105
103
102
101
117
113
107
Portland
East St Johns
Vancouver Jct
Ridgefield South
Interstate
Kalama
Longview Jct
Ostrander
MP 85
Vader
Napavine South
Chehalis Jct
Wabash
Plumb
Saint Clair
Camp Murray
South Tacoma
Stewart
Ellingson
Kent psgr
Black River
Coach Wye
Interbay
MP 16
MP 27
Everett Psgr
Kruse Jct
South Switch Stanwood
South Switch Mt Vernon
South Switch Bow
South Bellingham
South Switch Ferndale
South Switch Swift
Colebrook
South Switch Brownsville
Piper
CN Jct

Crew Plan
Timetable C

| Assignment | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
|---|---|---|---|---|---|---|
| SEATTLE - PORTLAND | | | | | | |
| SP1 | 6:00 | 13:55 | **7:55** | 101 | *0:55* | 108 |
| SP2 | 7:40 | 15:40 | **8:00** | 103 | *1:00* | 110 |
| SP3 | 9:25 | 21:45 | **12:20** | 105 | *5:20* | 116 |
| SP4 | 15:40 | 23:15 | **7:35** | 113 | *0:35* | 118 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| SEATTLE - VANCOUVER | | | | | | |
| SV1 | 7:15 | 16:25 | **9:10** | 102 | *1:15* | 113 |
| SV2 | 13:10 | 22:05 | **8:55** | 108 | *1:05* | 117 |
| SV3 | 17:20 | 21:45 | **4:25** | 112 | | |
| SV4 | 7:00 | 11:25 | **4:25** | 107 | | |
| PORTLAND - SEATTLE | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PS1 | 6:00 | 14:45 | **8:45** | 104 | *1:45* | 107 |
| PS2 | 8:10 | 17:40 | **9:30** | 106 | *2:30* | 109 |
| PS3 | 14:05 | 21:50 | **7:45** | 112 | *0:45* | 111 |
| PS4 | 15:25 | 23:10 | **7:45** | 114 | *0:45* | 113 |

First named station is crew headquarters

Equipment Plan
Timetable C

| Equipment Asgnmt | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Train | **104** | | **105** | | **112** | | | | | | | |
| | Miles | 179 | | 179 | | 335 | | | | | 693 | Miles | |
| | Time in Service | 3:00 | | 3:00 | | 6:40 | | | | | 12:40 | Time in Service | 87% Schedule Day |
| | Layover Time | | 0:25 | | 1:30 | | | | | | 1:55 | Layover Time | 13% Schedule Day |
| | | Portland | 6:30 | | | | | | Vancouver | 21:15 | 14:35 | Total Time | 61% Calendar Day |
| 2 | Train | **106** | | **109** | | **116** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 3:00 | | 3:00 | | 3:00 | | | | | 9:00 | Time in Service | 72% Schedule Day |
| | Layover Time | | 2:30 | | 1:05 | | | | | | 3:35 | Layover Time | 28% Schedule Day |
| | | Portland | 8:40 | | | | | | Seattle | 21:15 | 12:35 | Total Time | 52% Calendar Day |
| 3 | Train | **101** | | **108** | | **117** | | | | | | | |
| | Miles | 179 | | 335 | | 156 | | | | | 670 | Miles | |
| | Time in Service | 3:00 | | 6:40 | | 3:25 | | | | | 13:05 | Time in Service | 87% Schedule Day |
| | Layover Time | | 0:55 | | 1:05 | | | | | | 2:00 | Layover Time | 13% Schedule Day |
| | | Seattle | 6:30 | | | | | | Seattle | 21:35 | 15:05 | Total Time | 63% Calendar Day |
| 4 | Train | **103** | | **110** | | **111** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 3:00 | | 3:00 | | 3:00 | | | | | 9:00 | Time in Service | 68% Schedule Day |
| | Layover Time | | 1:00 | | 3:10 | | | | | | 4:10 | Layover Time | 32% Schedule Day |
| | | Seattle | 8:10 | | | | | | Portland | 21:20 | 13:10 | Total Time | 55% Calendar Day |
| 5 | Train | **107** | | **114** | | **115** | | | | | | | |
| | Miles | 335 | | 179 | | 179 | | | | | 693 | Miles | |
| | Time in Service | 6:40 | | 3:00 | | 3:00 | | | | | 12:40 | Time in Service | 84% Schedule Day |
| | Layover Time | | 1:40 | | 0:45 | | | | | | 2:25 | Layover Time | 16% Schedule Day |
| | | Vancouver | 7:30 | | | | | | Portland | 22:40 | 15:05 | Total Time | 63% Calendar Day |
| 6 | Train | **102** | | **113** | | **118** | | | | | | | |
| | Miles | 156 | | 335 | | 179 | | | | | 670 | Miles | |
| | Time in Service | 3:25 | | 6:40 | | 3:00 | | | | | 13:05 | Time in Service | 88% Schedule Day |
| | Layover Time | | 1:15 | | 0:35 | | | | | | 1:50 | Layover Time | 12% Schedule Day |
| | | Seattle | 7:45 | | | | | | Seattle | 22:45 | 14:55 | Total Time | 62% Calendar Day |

One equipment set required for each assignment

Terminating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Arrive | Asgnmt | Arrive |
| 2 | 21:15 | 4 | 21:20 |
| 3 | 21:35 | 5 | 22:40 |
| 6 | 22:45 | | |
| | | | |
| | | | |

Originating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Leave | Asgnmt | Leave |
| 3 | 6:30 | 1 | 6:30 |
| 6 | 7:45 | 2 | 8:40 |
| 4 | 8:10 | | |
| | | | |
| | | | |

Equipment Rotation

| Originate | Asgnmt | Miles | Seattle-Seattle Miles | Seatle time |
|---|---|---|---|---|
| Seattle | 4 | 539 | | |
| Portland | 1 | 693 | | |
| Vancouver | 5 | 693 | | |
| Portland | 2 | 539 | 2464 | 9:15 |
| Seattle | 3 | 670 | 670 | 10:10 |
| Seattle | 6 | 670 | 670 | 9:20 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

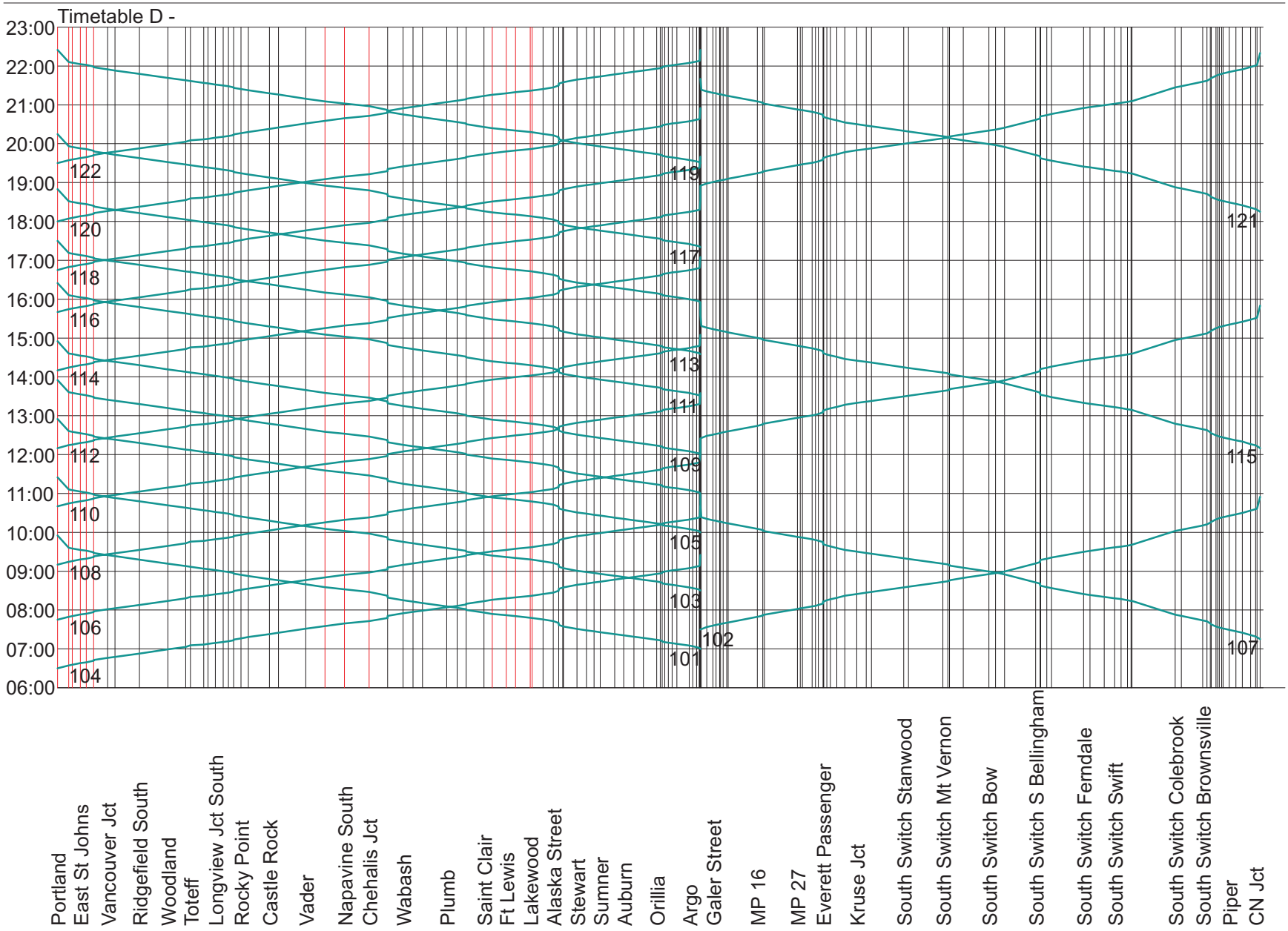
Each set works assignments in top to bottom order then repeats the cycle.

**TIMETABLE D** **SOUTHWARD TRAINS**

| Example Train Numbers | 119 | 121 | 117 | 113 | 111 | 115 | 109 | 105 | 103 | 107 | 101 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | | **6:15 P** | | | | **12:10 P** | | | | 7:15 A | |
| Bellingnham | | **7:40 P** | | | | **1:35 P** | | | | 8:40 A | |
| Mt Vernon | | **8:09 P** | | | | **2:04 P** | | | | 9:09 A | |
| Everett | | **8:44 P** | | | | **2:39 P** | | | | 9:44 A | |
| Edmonds | | **9:03 P** | | | | **2:58 P** | | | | 10:03 A | |
| Seattle | **7:30 P** | **9:40 P** | **5:20 P** | **2:35 P** | **1:30 P** | **3:35 P**<br>**3:55 P** | **12:00 P** | 10:00 A | 8:30 A | 10:40 A<br>11:00 A | 7:00 A |
| Tukwila | **7:42 P** | | **5:32 P** | **2:47 P** | **1:42 P** | **4:07 P** | **12:12 P** | 10:12 A | 8:42 A | 11:12 A | 7:12 A |
| Tacoma | **8:09 P** | | **5:59 P** | **3:14 P** | **2:09 P** | **4:34 P** | **12:39 P** | 10:39 A | 9:09 A | 11:39 A | 7:39 A |
| Centennial | **8:31 P** | | **6:21 P** | **3:36 P** | **2:31 P** | **4:56 P** | **1:01 P** | 11:01 A | 9:31 A | **12:01 P** | 8:01 A |
| Centralia | **8:52 P** | | **6:42 P** | **3:57 P** | **2:52 P** | **5:17 P** | **1:22 P** | 11:22 A | 9:52 A | **12:22 P** | 8:22 A |
| Kelso | **9:27 P** | | **7:17 P** | **4:32 P** | **3:27 P** | **5:52 P** | **1:57 P** | 11:57 A | 10:27 A | **12:57 P** | 8:57 A |
| Vancouver | **9:59 P** | | **7:49 P** | **5:04 P** | **3:59 P** | **6:24 P** | **2:29 P** | **12:29 P** | 10:59 A | **1:29 P** | 9:29 A |
| Portland | **10:25 P** | | **8:15 P** | **5:30 P** | **4:25 P** | **6:50 P** | **2:55 P** | **12:55 P** | 11:25 A | **1:55 P** | 9:55 A |

**TIMETABLE D** **NORTHWARD TRAINS**

| Example Train Numbers | 104 | 106 | 102 | 108 | 110 | 112 | 114 | 116 | 118 | 120 | 122 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | | | 10:55 A | **3:50 P** | | | | **10:20 P** | | | |
| Bellingnham | | | 9:17 A | **2:12 P** | | | | **8:42 P** | | | |
| Mt Vernon | | | 8:46 A | **1:41 P** | | | | **8:11 P** | | | |
| Everett | | | 8:13 A | **1:08 P** | | | | **7:38 P** | | | |
| Edmonds | | | 7:52 A | **12:47 P** | | | | **7:17 P** | | | |
| Seattle | 9:25 A | 10:40 A | 7:30 A | **12:25 P**<br>**12:05 P** | **1:35 P** | **3:05 P** | **5:05 P** | **6:55 P**<br>**6:35 P** | **7:40 P** | **8:55 P** | **10:25 P** |
| Tukwila | 8:58 A | 10:13 A | | 11:38 A | **1:08 P** | **2:38 P** | **4:38 P** | **6:08 P** | **7:13 P** | **8:28 P** | **9:58 P** |
| Tacoma | 8:32 A | 9:47 A | | 11:12 A | **12:42 P** | **2:12 P** | **4:12 P** | **5:42 P** | **6:47 P** | **8:02 P** | **9:32 P** |
| Centennial | 8:09 A | 9:24 A | | 10:49 A | **12:19 P** | **1:49 P** | **3:49 P** | **5:19 P** | **6:24 P** | **7:39 P** | **9:09 P** |
| Centralia | 7:50 A | 9:05 A | | 10:30 A | **12:00 P** | **1:30 P** | **3:30 P** | **5:00 P** | **6:05 P** | **7:20 P** | **8:50 P** |
| Kelso | 7:14 A | 8:29 A | | 9:54 A | 11:24 A | **12:54 P** | **2:54 P** | **4:24 P** | **5:29 P** | **6:44 P** | **8:14 P** |
| Vancouver | 6:42 A | 7:57 A | | 9:22 A | 10:52 A | **12:22 P** | **2:22 P** | **3:52 P** | **4:57 P** | **6:12 P** | **7:42 P** |
| Portland | 6:30 A | 7:45 A | | 9:10 A | 10:40 A | **12:10 P** | **2:10 P** | **3:40 P** | **4:45 P** | **6:00 P** | **7:30 P** |


Timetable D -
23:00
22:00
21:00
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19:00
18:00
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15:00
14:00
13:00
12:00
11:00
10:00
09:00
08:00
07:00
06:00
122
120
118
116
114
112
110
108
106
104
119
117
113
111
109
105
103
102
101
121
115
107
Portland
East St Johns
Vancouver Jct
Ridgefield South
Woodland
Toteff
Longview Jct South
Rocky Point
Castle Rock
Vader
Napavine South
Chehalis Jct
Wabash
Plumb
Saint Clair
Ft Lewis
Lakewood
Alaska Street
Stewart
Sumner
Auburn
Orillia
Argo
Galer Street
MP 16
MP 27
Everett Passenger
Kruse Jct
South Switch Stanwood
South Switch Mt Vernon
South Switch Bow
South Switch S Bellingham
South Switch Ferndale
South Switch Swift
South Switch Colebrook
South Switch Brownsville
Piper
CN Jct

Crew Plan
Timetable D

| Assignment | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
|---|---|---|---|---|---|---|
| SEATTLE - PORTLAND | | | | | | |
| SP1 | 6:30 | 14:05 | **7:35** | 101 | *0:45* | 110 |
| SP2 | 8:00 | 17:35 | **9:35** | 103 | *2:45* | 114 |
| SP3 | 10:30 | 20:10 | **9:40** | 107 | *2:50* | 118 |
| SP4 | 14:05 | 21:25 | **7:20** | 113 | *0:30* | 120 |
| SP5 | 15:25 | 22:55 | **7:30** | 115 | *0:40* | 122 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| SEATTLE - VANCOUVER | | | | | | |
| SV1 | 7:00 | 16:05 | **9:05** | 102 | *1:15* | 115 |
| SV2 | 11:55 | 22:10 | **10:15** | 108 | *2:25* | 121 |
| SV3 | 18:25 | 22:50 | **4:25** | 116 | | |
| SV4 | 6:45 | 11:10 | **4:25** | 107 | | |
| PORTLAND - SEATTLE | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PS1 | 6:00 | 13:25 | **7:25** | 104 | *0:35* | 105 |
| PS2 | 7:15 | 15:25 | **8:10** | 106 | *1:20* | 109 |
| PS3 | 8:40 | 16:55 | **8:15** | 108 | *1:25* | 111 |
| PS4 | 11:40 | 20:45 | **9:05** | 112 | *2:15* | 117 |
| PS5 | 15:10 | 22:55 | **7:45** | 116 | *0:55* | 119 |

First named station is crew headquarters

Equipment Plan
Timetable D

| Equipment Asgnmt | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Train | **104** | | **109** | | **116** | | | | | | | |
| | Miles | 179 | | 179 | | 335 | | | | | 693 | Miles | |
| | Time in Service | 2:55 | | 2:55 | | 6:40 | | | | | 12:30 | Time in Service | 79% Schedule Day |
| | Layover Time | | 2:35 | | 0:45 | | | | | | 3:20 | Layover Time | 21% Schedule Day |
| | | Portland | 6:30 | | | | | | Vancouver | 22:20 | 15:50 | Total Time | 66% Calendar Day |
| 2 | Train | **106** | | **111** | | **120** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 2:55 | | 2:55 | | 2:55 | | | | | 8:45 | Time in Service | 66% Schedule Day |
| | Layover Time | | 2:50 | | 1:35 | | | | | | 4:25 | Layover Time | 34% Schedule Day |
| | | Portland | 7:45 | | | | | | Seattle | 20:55 | 13:10 | Total Time | 55% Calendar Day |
| 3 | Train | **108** | | **121** | | | | | | | | | |
| | Miles | 335 | | 156 | | | | | | | 491 | Miles | |
| | Time in Service | 6:40 | | 3:25 | | | | | | | 10:05 | Time in Service | 81% Schedule Day |
| | Layover Time | | 2:25 | | | | | | | | 2:25 | Layover Time | 19% Schedule Day |
| | | Portland | 9:10 | | | | | | Seattle | 21:40 | 12:30 | Total Time | 52% Calendar Day |
| 4 | Train | **101** | | **110** | | **113** | | **122** | | | | | |
| | Miles | 179 | | 179 | | 179 | | 179 | | | 716 | Miles | |
| | Time in Service | 2:55 | | 2:55 | | 2:55 | | 2:55 | | | 11:40 | Time in Service | 76% Schedule Day |
| | Layover Time | | 0:45 | | 1:00 | | 2:00 | | | | 3:45 | Layover Time | 24% Schedule Day |
| | | Seattle | 7:00 | | | | | | Seattle | 22:25 | 15:25 | Total Time | 64% Calendar Day |
| 5 | Train | **103** | | **112** | | **117** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 2:55 | | 2:55 | | 2:55 | | | | | 8:45 | Time in Service | 74% Schedule Day |
| | Layover Time | | 0:45 | | 2:15 | | | | | | 3:00 | Layover Time | 26% Schedule Day |
| | | Seattle | 8:30 | | | | | | Portland | 20:15 | 11:45 | Total Time | 49% Calendar Day |
| 6 | Train | **105** | | **114** | | **119** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 2:55 | | 2:55 | | 2:55 | | | | | 8:45 | Time in Service | 70% Schedule Day |
| | Layover Time | | 1:15 | | 2:25 | | | | | | 3:40 | Layover Time | 30% Schedule Day |
| | | Seattle | 10:00 | | | | | | Portland | 22:25 | 12:25 | Total Time | 52% Calendar Day |
| 7 | Train | **107** | | **118** | | | | | | | | | |
| | Miles | 335 | | 179 | | | | | | | 514 | Miles | |
| | Time in Service | 6:40 | | 2:55 | | | | | | | 9:35 | Time in Service | 77% Schedule Day |
| | Layover Time | | 2:50 | | | | | | | | 2:50 | Layover Time | 23% Schedule Day |
| | | Vancouver | 7:15 | | | | | | Seattle | 19:40 | 12:25 | Total Time | 52% Calendar Day |
| 8 | Train | **102** | | **115** | | | | | | | | | |
| | Miles | 156 | | 335 | | | | | | | 491 | Miles | |
| | Time in Service | 3:25 | | 6:40 | | | | | | | 10:05 | Time in Service | 89% Schedule Day |
| | Layover Time | | 1:15 | | | | | | | | 1:15 | Layover Time | 11% Schedule Day |
| | | Seattle | 7:30 | | | | | | Portland | 18:50 | 11:20 | Total Time | 47% Calendar Day |

One equipment set required for each assignment

Terminating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Arrive | Asgnmt | Arrive |
| 7 | 19:40 | 8 | 18:50 |
| 2 | 20:55 | 5 | 20:15 |
| 3 | 21:40 | 6 | 22:25 |
| 4 | 22:25 | | |
| | | | |

Originating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Leave | Asgnmt | Leave |
| 4 | 7:00 | 1 | 6:30 |
| 8 | 7:30 | 2 | 7:45 |
| 5 | 8:30 | 3 | 9:10 |
| 6 | 10:00 | | |
| | | | |

Equipment Rotation

| Originate | Asgnmt | Miles | Seattle-Seattle Miles | Seatle time |
|---|---|---|---|---|
| Seattle | 4 | 716 | 716 | 10:05 |
| Seattle | 5 | 537 | | |
| Portland | 1 | 693 | | |
| Vancouver | 7 | 514 | 1744 | 11:50 |
| Seattle | 8 | 491 | | |
| Portland | 2 | 537 | 1028 | 13:05 |
| Seattle | 6 | 537 | | |
| Portland | 3 | 491 | 1028 | 9:20 |
| | | | | |

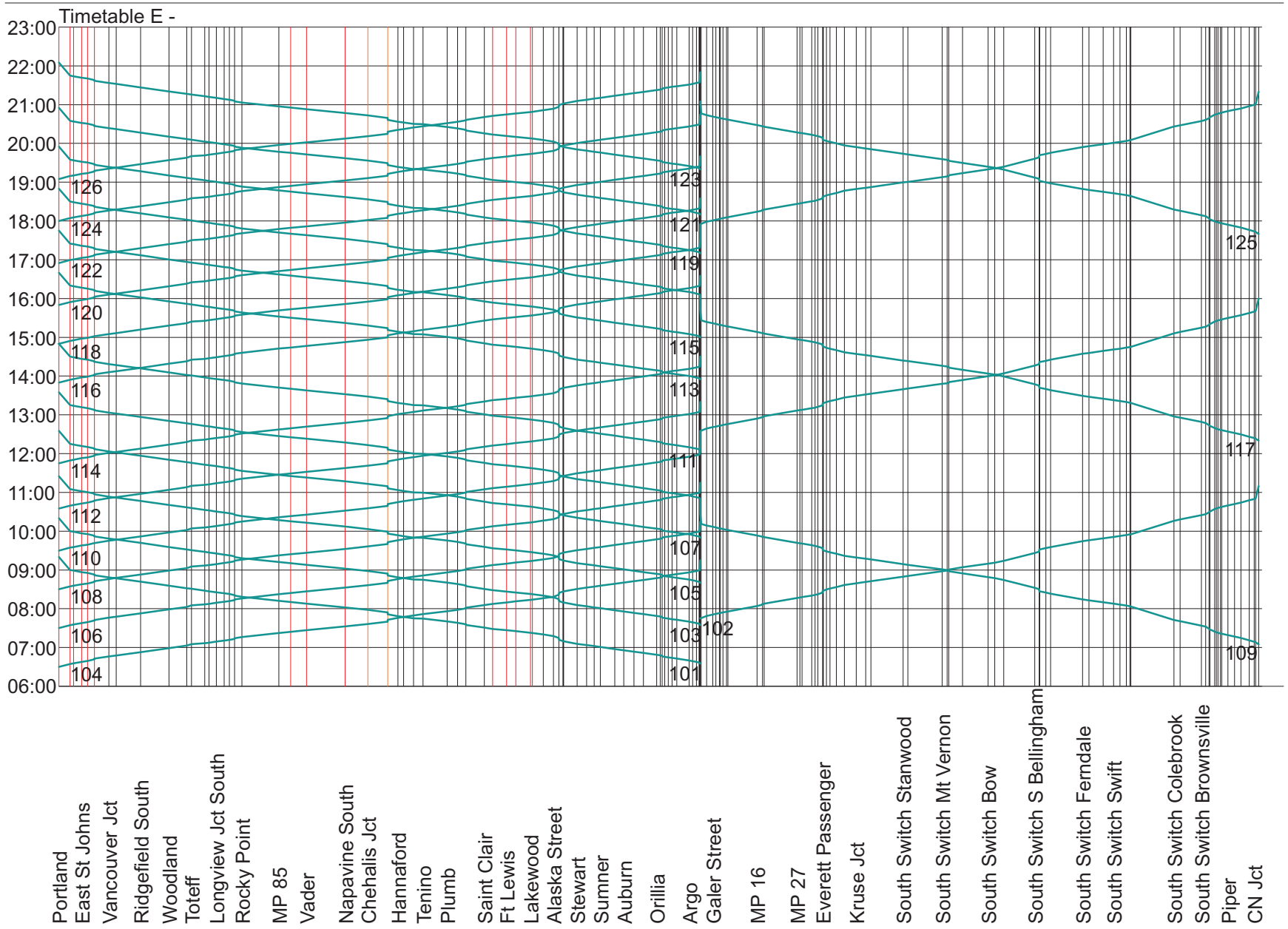
Each set works assignments in top to bottom order then repeats the cycle.

**Timetable E** — **SOUTHWARD TRAINS**

| Example Train Numbers | 123 | 121 | 125 | 119 | 115 | 113 | 117 | 111 | 107 | 105 | 103 | 109 | 101 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | | | **5:40 P** | | | | **12:20 P** | | | | | 7:05 A | |
| Bellingnham | | | **7:05 P** | | | | **1:45 P** | | | | | 8:30 A | |
| Mt Vernon | | | **7:33 P** | | | | **2:13 P** | | | | | 8:58 A | |
| Everett | | | **8:08 P** | | | | **2:48 P** | | | | | 9:33 A | |
| Edmonds | | | **8:26 P** | | | | **3:06 P** | | | | | 9:51 A | |
| Seattle | **7:20 P** | **6:10 P** | **9:05 P** | **5:10 P** | **3:00 P** | **1:55 P** | **3:45 P**<br>**4:05 P** | **12:05 P** | 9:50 A | 8:40 A | 7:35 A | 10:30 A<br>10:50 A | 6:35 A |
| Tukwila | **7:31 P** | **6:21 P** | | **5:21 P** | **3:11 P** | **2:06 P** | **4:16 P** | **12:16 P** | 10:01 A | 8:51 A | 7:46 A | 11:01 A | 6:46 A |
| Tacoma | **7:59 P** | **6:49 P** | | **5:49 P** | **3:39 P** | **2:34 P** | **4:44 P** | **12:44 P** | 10:29 A | 9:19 A | 8:14 A | 11:29 A | 7:14 A |
| Centennial | **8:20 P** | **7:10 P** | | **6:10 P** | **4:00 P** | **2:55 P** | **5:05 P** | **1:05 P** | 10:50 A | 9:40 A | 8:35 A | 11:50 A | 7:35 A |
| Centralia | **8:39 P** | **7:29 P** | | **6:29 P** | **4:19 P** | **3:14 P** | **5:24 P** | **1:24 P** | 11:09 A | 9:59 A | 8:54 A | **12:09 P** | 7:54 A |
| Kelso | **9:06 P** | **7:56 P** | | **6:56 P** | **4:46 P** | **3:41 P** | **5:51 P** | **1:51 P** | 11:36 A | 10:26 A | 9:21 A | **12:36 P** | 8:21 A |
| Vancouver | **9:37 P** | **8:27 P** | | **7:27 P** | **5:17 P** | **4:12 P** | **6:22 P** | **2:22 P** | **12:07 P** | 10:57 A | 9:52 A | **1:07 P** | 8:52 A |
| Portland | **10:05 P** | **8:55 P** | | **7:55 P** | **5:45 P** | **4:40 P** | **6:50 P** | **2:50 P** | **12:35 P** | 11:25 A | 10:20 A | **1:35 P** | 9:20 A |

**Timetable E** — **NORTHWARD TRAINS**

| Example Train Numbers | 104 | 106 | 102 | 108 | 110 | 112 | 114 | 116 | 118 | 120 | 122 | 124 | 126 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | | | 11:10 A | | **4:00 P** | | | | **9:20 P** | | | | |
| Bellingnham | | | 9:31 A | | **2:21 P** | | | | **7:41 P** | | | | |
| Mt Vernon | | | 9:00 A | | **1:50 P** | | | | **7:10 P** | | | | |
| Everett | | | 8:27 A | | **1:17 P** | | | | **6:37 P** | | | | |
| Edmonds | | | 8:07 A | | **12:57 P** | | | | **6:17 P** | | | | |
| Seattle | 9:15 A | 10:15 A | 7:45 A | 11:15 A | **12:35 P**<br>**12:15 P** | **1:20 P** | **2:30 P** | **4:35 P** | **5:55 P**<br>**5:35 P** | **6:35 P** | **7:40 P** | **8:45 P** | **9:50 P** |
| Tukwila | 8:49 A | 9:49 A | | 10:49 A | 11:48 A | **12:54 P** | **2:04 P** | **4:09 P** | **5:08 P** | **6:09 P** | **7:14 P** | **8:19 P** | **9:24 P** |
| Tacoma | 8:24 A | 9:24 A | | 10:24 A | 11:23 A | **12:29 P** | **1:39 P** | **3:44 P** | **4:43 P** | **5:44 P** | **6:49 P** | **7:54 P** | **8:59 P** |
| Centennial | 8:01 A | 9:01 A | | 10:01 A | 11:00 A | **12:06 P** | **1:16 P** | **3:21 P** | **4:20 P** | **5:21 P** | **6:26 P** | **7:31 P** | **8:36 P** |
| Centralia | 7:42 A | 8:42 A | | 9:42 A | 10:41 A | 11:47 A | **12:57 P** | **3:02 P** | **4:01 P** | **5:02 P** | **6:07 P** | **7:12 P** | **8:17 P** |
| Kelso | 7:14 A | 8:14 A | | 9:14 A | 10:13 A | 11:19 A | **12:29 P** | **2:34 P** | **3:33 P** | **4:34 P** | **5:39 P** | **6:44 P** | **7:49 P** |
| Vancouver | 6:42 A | 7:42 A | | 8:42 A | 9:42 A | 10:47 A | 11:57 A | **2:02 P** | **3:02 P** | **4:02 P** | **5:07 P** | **6:12 P** | **7:17 P** |
| Portland | 6:30 A | 7:30 A | | 8:30 A | 9:30 A | 10:35 A | 11:45 A | **1:50 P** | **2:50 P** | **3:50 P** | **4:55 P** | **6:00 P** | **7:05 P** |


Timetable E -
23:00
22:00
21:00
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108
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119
115
113
111
107
105
103
102
101
125
117
109
Portland
East St Johns
Vancouver Jct
Ridgefield South
Woodland
Toteff
Longview Jct South
Rocky Point
MP 85
Vader
Napavine South
Chehalis Jct
Hannaford
Tenino
Plumb
Saint Clair
Ft Lewis
Lakewood
Alaska Street
Stewart
Sumner
Auburn
Orillia
Argo
Galer Street
MP 16
MP 27
Everett Passenger
Kruse Jct
South Switch Stanwood
South Switch Mt Vernon
South Switch Bow
South Switch S Bellingham
South Switch Ferndale
South Switch Swift
South Switch Colebrook
South Switch Brownsville
Piper
CN Jct

Crew Plan
Timetable E

| Assignment | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
|---|---|---|---|---|---|---|
| SEATTLE - PORTLAND | | | | | | |
| SP1 | 6:05 | 13:50 | **7:45** | 101 | *1:15* | 112 |
| SP2 | 7:05 | 15:00 | **7:55** | 103 | *1:25* | 114 |
| SP3 | 8:10 | 20:10 | **12:00** | 105 | *5:30* | 122 |
| SP4 | 13:25 | 21:15 | **7:50** | 113 | *1:20* | 124 |
| SP5 | 14:30 | 22:20 | **7:50** | 115 | *1:20* | 126 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| SEATTLE - VANCOUVER | | | | | | |
| SV1 | 7:15 | 16:15 | **9:00** | 102 | *1:10* | 117 |
| SV2 | 12:05 | 21:35 | **9:30** | 110 | *1:40* | 125 |
| SV3 | 17:25 | 21:50 | **4:25** | 118 | | |
| SV4 | 6:35 | 11:00 | **4:25** | 109 | | |
| PORTLAND - SEATTLE | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PS1 | 6:00 | 13:05 | **7:05** | 104 | *0:35* | 107 |
| PS2 | 7:00 | 14:05 | **7:05** | 106 | *0:35* | 109 |
| PS3 | 8:00 | 15:20 | **7:20** | 108 | *0:50* | 111 |
| PS4 | 9:00 | 19:10 | **10:10** | 110 | *3:50* | 117 |
| PS5 | 13:20 | 20:25 | **7:05** | 116 | *0:35* | 119 |
| PS6 | 14:20 | 21:25 | **7:05** | 118 | *0:35* | 121 |
| PS7 | 15:20 | 22:35 | **7:15** | 120 | *0:45* | 123 |

First named station is crew headquarters

Equipment Plan
Timetable E

| Equipment Asgnmt | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Train | **104** | | **107** | | **118** | | | | | | | |
| | Miles | 179 | | 179 | | 335 | | | | | 693 | Miles | |
| | Time in Service | 2:45 | | 2:45 | | 6:30 | | | | | 12:00 | Time in Service | 81% Schedule Day |
| | Layover Time | | 0:35 | | 2:15 | | | | | | 2:50 | Layover Time | 19% Schedule Day |
| | | Portland | 6:00 | | | | | | Vancouver | 21:20 | 14:50 | Total Time | 62% Calendar Day |
| 2 | Train | **106** | | **111** | | **122** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 2:45 | | 2:45 | | 2:45 | | | | | 8:15 | Time in Service | 68% Schedule Day |
| | Layover Time | | 1:50 | | 2:05 | | | | | | 3:55 | Layover Time | 32% Schedule Day |
| | | Portland | 7:30 | | | | | | Seattle | 19:40 | 12:10 | Total Time | 51% Calendar Day |
| 3 | Train | **108** | | **113** | | **124** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 2:45 | | 2:45 | | 2:45 | | | | | 8:15 | Time in Service | 67% Schedule Day |
| | Layover Time | | 2:40 | | 1:20 | | | | | | 4:00 | Layover Time | 33% Schedule Day |
| | | Portland | 8:30 | | | | | | Seattle | 20:45 | 12:15 | Total Time | 51% Calendar Day |
| 4 | Train | **110** | | **125** | | | | | | | | | |
| | Miles | 335 | | 156 | | | | | | | 491 | Miles | |
| | Time in Service | 6:30 | | 3:25 | | | | | | | 9:55 | Time in Service | 86% Schedule Day |
| | Layover Time | | 1:40 | | | | | | | | 1:40 | Layover Time | 14% Schedule Day |
| | | Portland | 9:30 | | | | | | Seattle | 21:05 | 11:35 | Total Time | 48% Calendar Day |
| 5 | Train | **101** | | **112** | | **115** | | **126** | | | | | |
| | Miles | 179 | | 179 | | 179 | | 179 | | | 716 | Miles | |
| | Time in Service | 2:45 | | 2:45 | | 2:45 | | 2:45 | | | 11:00 | Time in Service | 72% Schedule Day |
| | Layover Time | | 1:15 | | 1:40 | | 1:20 | | | | 4:15 | Layover Time | 28% Schedule Day |
| | | Seattle | 6:35 | | | | | | Seattle | 21:50 | 15:15 | Total Time | 64% Calendar Day |
| 6 | Train | **103** | | **114** | | **119** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 2:45 | | 2:45 | | 2:45 | | | | | 8:15 | Time in Service | 67% Schedule Day |
| | Layover Time | | 1:25 | | 2:40 | | | | | | 4:05 | Layover Time | 33% Schedule Day |
| | | Seattle | 7:35 | | | | | | Portland | 19:55 | 12:20 | Total Time | 51% Calendar Day |
| 7 | Train | **105** | | **116** | | **121** | | | | | | | |
| | Miles | 179 | | 179 | | 179 | | | | | 537 | Miles | |
| | Time in Service | 2:45 | | 2:45 | | 2:45 | | | | | 8:15 | Time in Service | 67% Schedule Day |
| | Layover Time | | 2:25 | | 1:35 | | | | | | 4:00 | Layover Time | 33% Schedule Day |
| | | Seattle | 8:40 | | | | | | Portland | 20:55 | 12:15 | Total Time | 51% Calendar Day |
| 8 | Train | **102** | | **117** | | | | | | | | | |
| | Miles | 156 | | 335 | | | | | | | 491 | Miles | |
| | Time in Service | 3:25 | | 6:30 | | | | | | | 9:55 | Time in Service | 89% Schedule Day |
| | Layover Time | | 1:10 | | | | | | | | 1:10 | Layover Time | 11% Schedule Day |
| | | Seattle | 7:45 | | | | | | Portland | 18:50 | 11:05 | Total Time | 46% Calendar Day |
| 9 | Train | **109** | | **120** | | **123** | | | | | | | |
| | Miles | 335 | | 179 | | 179 | | | | | 693 | Miles | |
| | Time in Service | 6:30 | | 2:45 | | 2:45 | | | | | 12:00 | Time in Service | 80% Schedule Day |
| | Layover Time | | 2:15 | | 0:45 | | | | | | 3:00 | Layover Time | 20% Schedule Day |
| | | Vancouver | 7:05 | | | | | | Portland | 22:05 | 15:00 | Total Time | 63% Calendar Day |

One equipment set required for each assignment

Terminating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Arrive | Asgnmt | Arrive |
| 2 | 19:40 | 8 | 18:50 |
| 3 | 20:45 | 6 | 19:55 |
| 4 | 21:05 | 7 | 20:55 |
| 5 | 21:50 | 9 | 22:05 |
| | | | |

Originating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Leave | Asgnmt | Leave |
| 5 | 6:35 | 1 | 6:00 |
| 6 | 7:35 | 2 | 7:30 |
| 8 | 7:45 | 3 | 8:30 |
| 7 | 8:40 | 4 | 9:30 |
| | | | |

Equipment Rotation

| Originate | Asgnmt | Miles | Seattle-Seattle Miles | Seattle time |
|---|---|---|---|---|
| Seattle | 5 | 716 | 716 | 9:45 |
| Seattle | 6 | 537 | | |
| Portland | 1 | 693 | | |
| Vancouver | 9 | 693 | | |
| Portland | 2 | 537 | 2460 | 13:00 |
| Seattle | 7 | 537 | | |
| Portland | 3 | 537 | 1074 | 11:00 |
| Seattle | 8 | 491 | | |
| Portland | 4 | 491 | 982 | 9:30 |
| | | | | |

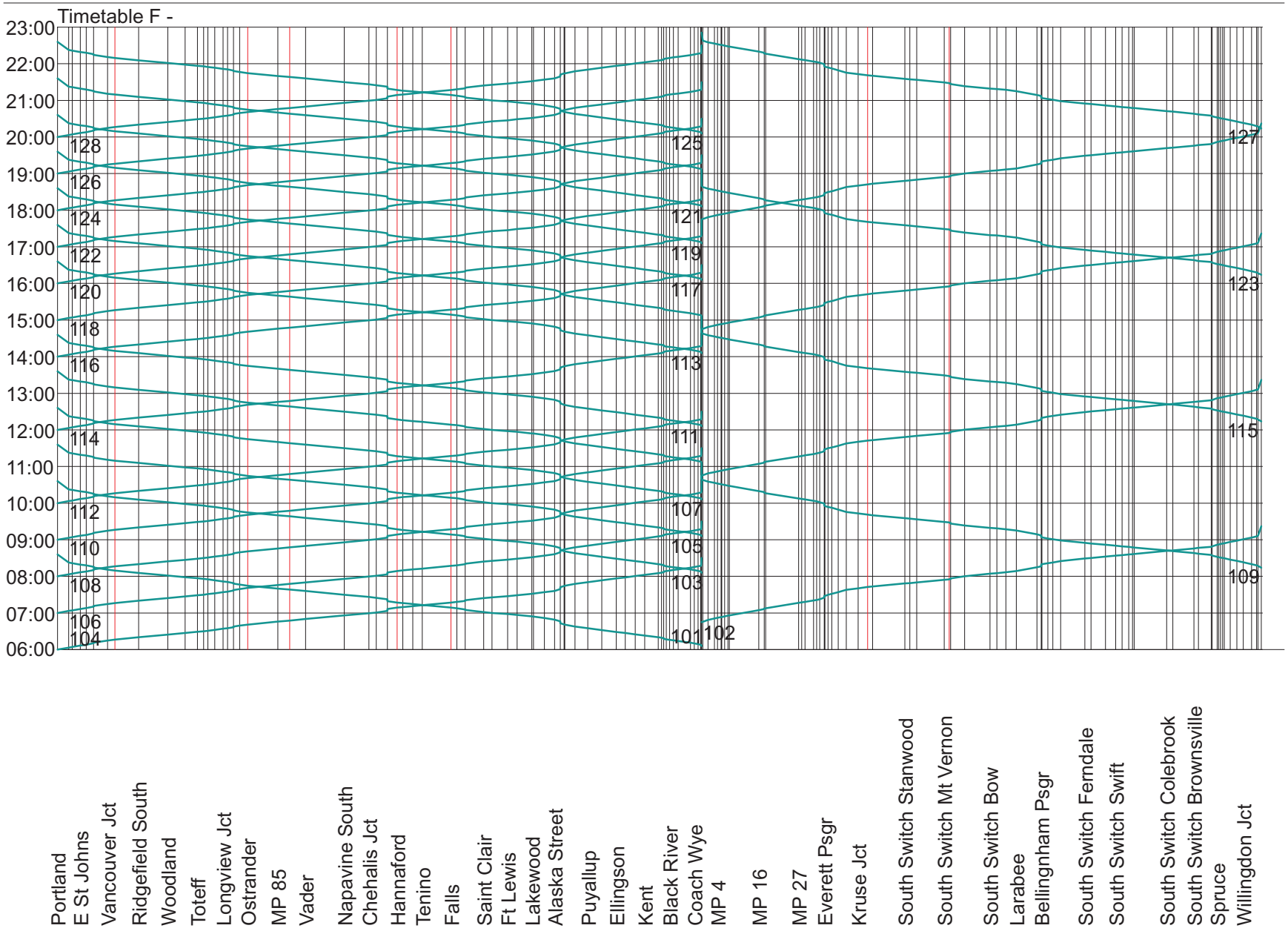
Each set works assignments in top to bottom order then repeats the cycle.

**Timetable F** — **SOUTHWARD TRAINS**

| Example Train Numbers | 127 | 125 | 121 | 119 | 123 | 117 | 113 | 115 | 111 | 107 | 105 | 109 | 103 | 101 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | **8:14 P** | | | | **4:14 P** | | | **12:14 P** | | | | 8:14 A | | |
| Bellingnham | **9:07 P** | | | | **5:07 P** | | | **1:07 P** | | | | 9:07 A | | |
| Mt Vernon | **9:27 P** | | | | **5:27 P** | | | **1:27 P** | | | | 9:27 A | | |
| Everett | **9:59 P** | | | | **5:59 P** | | | **1:59 P** | | | | 9:59 A | | |
| Edmonds | **10:17 P** | | | | **6:17 P** | | | **2:17 P** | | | | 10:17 A | | |
| | **10:51 P** | | | | **6:51 P** | | | **2:51 P** | | | | 10:51 A | | |
| Seattle | | **8:06 P** | **6:06 P** | **5:06 P** | **7:06 P** | **4:06 P** | **2:06 P** | **3:06 P** | **12:06 P** | 10:06 A | 9:06 A | 11:06 A | 8:06 A | 6:06 A |
| Tukwila | | **8:18 P** | **6:18 P** | **5:18 P** | **7:18 P** | **4:18 P** | **2:18 P** | **3:18 P** | **12:18 P** | 10:18 A | 9:18 A | 11:18 A | 8:18 A | 6:18 A |
| Tacoma | | **8:46 P** | **6:46 P** | **5:46 P** | **7:46 P** | **4:46 P** | **2:46 P** | **3:46 P** | **12:46 P** | 10:46 A | 9:46 A | 11:46 A | 8:46 A | 6:46 A |
| Centennial | | **9:05 P** | **7:05 P** | **6:05 P** | **8:05 P** | **5:05 P** | **3:05 P** | **4:05 P** | **1:05 P** | 11:05 A | 10:05 A | **12:05 P** | 9:05 A | 7:05 A |
| Centralia | | **9:22 P** | **7:22 P** | **6:22 P** | **8:22 P** | **5:22 P** | **3:22 P** | **4:22 P** | **1:22 P** | 11:22 A | 10:22 A | **12:22 P** | 9:22 A | 7:22 A |
| Kelso | | **9:49 P** | **7:49 P** | **6:49 P** | **8:49 P** | **5:49 P** | **3:49 P** | **4:49 P** | **1:49 P** | 11:49 A | 10:49 A | **12:49 P** | 9:49 A | 7:49 A |
| Vancouver | | **10:15 P** | **8:15 P** | **7:15 P** | **9:15 P** | **6:15 P** | **4:15 P** | **5:15 P** | **2:15 P** | **12:15 P** | 11:15 A | **1:15 P** | 10:15 A | 8:15 A |
| Portland | | **10:36 P** | **8:36 P** | **7:36 P** | **9:36 P** | **6:36 P** | **4:36 P** | **5:36 P** | **2:36 P** | **12:36 P** | 11:36 A | **1:36 P** | 10:36 A | 8:36 A |

**Timetable F** — **NORTHWARD TRAINS**

| Example Train Numbers | 104 | 102 | 106 | 108 | 110 | 112 | 114 | 116 | 118 | 120 | 122 | 124 | 126 | 128 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | | 9:22 A | | **1:22 P** | | | **5:22 P** | | **8:22 P** | | | | | |
| Bellingnham | | 8:19 A | | **12:19 P** | | | **4:19 P** | | **7:19 P** | | | | | |
| Mt Vernon | | 7:56 A | | 11:56 A | | | **3:56 P** | | **6:56 P** | | | | | |
| Everett | | 7:27 A | | 11:27 A | | | **3:27 P** | | **6:27 P** | | | | | |
| Edmonds | | 7:07 A | | 11:07 A | | | **3:07 P** | | **6:07 P** | | | | | |
| | | 6:45 A | | 10:45 A | | | **2:45 P** | | **5:45 P** | | | | | |
| Seattle | 8:30 A | | 9:30 A | 10:30 A | 11:30 A | **12:30 P** | **2:30 P** | **4:30 P** | **5:30 P** | **6:30 P** | **7:30 P** | **8:30 P** | **9:30 P** | **10:30 P** |
| Tukwila | 8:07 A | | 9:07 A | 10:07 A | 11:07 A | **12:07 P** | **2:07 P** | **4:07 P** | **5:07 P** | **6:07 P** | **7:07 P** | **8:07 P** | **9:07 P** | **10:07 P** |
| Tacoma | 7:42 A | | 8:42 A | 9:42 A | 10:42 A | 11:42 A | **1:42 P** | **3:42 P** | **4:42 P** | **5:42 P** | **6:42 P** | **7:42 P** | **8:42 P** | **9:42 P** |
| Centennial | 7:20 A | | 8:20 A | 9:20 A | 10:20 A | 11:20 A | **1:20 P** | **3:20 P** | **4:20 P** | **5:20 P** | **6:20 P** | **7:20 P** | **8:20 P** | **9:20 P** |
| Centralia | 7:06 A | | 8:06 A | 9:06 A | 10:06 A | 11:06 A | **1:06 P** | **3:06 P** | **4:06 P** | **5:06 P** | **6:06 P** | **7:06 P** | **8:06 P** | **9:06 P** |
| Kelso | 6:37 A | | 7:37 A | 8:37 A | 9:37 A | 10:37 A | **12:37 P** | **2:37 P** | **3:37 P** | **4:37 P** | **5:37 P** | **6:37 P** | **7:37 P** | **8:37 P** |
| Vancouver | 6:11 A | | 7:11 A | 8:11 A | 9:11 A | 10:11 A | **12:11 P** | **2:11 P** | **3:11 P** | **4:11 P** | **5:11 P** | **6:11 P** | **7:11 P** | **8:11 P** |
| Portland | 6:00 A | | 7:00 A | 8:00 A | 9:00 A | 10:00 A | **12:00 P** | **2:00 P** | **3:00 P** | **4:00 P** | **5:00 P** | **6:00 P** | **7:00 P** | **8:00 P** |


Timetable F -
23:00
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121
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117
113
111
107
105
103
101
102
127
123
115
109
Portland
E St Johns
Vancouver Jct
Ridgefield South
Woodland
Toteff
Longview Jct
Ostrander
MP 85
Vader
Napavine South
Chehalis Jct
Hannaford
Tenino
Falls
Saint Clair
Ft Lewis
Lakewood
Alaska Street
Puyallup
Ellingson
Kent
Black River
Coach Wye
MP 4
MP 16
MP 27
Everett Psgr
Kruse Jct
South Switch Stanwood
South Switch Mt Vernon
South Switch Bow
Larabee
Bellingnham Psgr
South Switch Ferndale
South Switch Swift
South Switch Colebrook
South Switch Brownsville
Spruce
Willingdon Jct

Crew Plan
Timetable F

| Assignment | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
|---|---|---|---|---|---|---|
| SEATTLE - PORTLAND | | | | | | |
| SP1 | 5:36 | 12:00 | **6:24** | 101 | *0:24* | 110 |
| SP2 | 7:36 | 15:00 | **7:24** | 103 | *1:24* | 114 |
| SP3 | 13:36 | 21:00 | **7:24** | 113 | *1:24* | 124 |
| SP4 | 15:36 | 22:00 | **6:24** | 117 | *0:24* | 126 |
| SP5 | 16:36 | 23:00 | **6:24** | 119 | *0:24* | 128 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| SEATTLE - VANCOUVER | | | | | | |
| SV1 | 6:15 | 16:20 | **10:05** | 102 | *2:47* | 115 |
| SV2 | 10:15 | 18:50 | **8:35** | 108 | *2:47* | 123 |
| SV3 | 14:15 | 23:20 | **9:05** | 114 | *2:47* | 127 |
| PORTLAND - SEATTLE | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PS1 | 5:30 | 12:06 | **6:36** | 104 | *0:36* | 105 |
| PS2 | 6:30 | 13:06 | **6:36** | 106 | *0:36* | 107 |
| PS3 | 7:30 | 15:06 | **7:36** | 108 | *1:36* | 111 |
| PS4 | 9:30 | 18:06 | **8:36** | 112 | *2:36* | 115 |
| PS5 | 13:30 | 21:06 | **7:36** | 116 | *1:36* | 121 |
| PS6 | 15:30 | 22:06 | **6:36** | 120 | *0:36* | 123 |
| PS7 | 16:30 | 23:06 | **6:36** | 122 | *0:36* | 125 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PORTLAND - VANCOUVER | | | | | | |
| PV1 | 14:30 | 20:57 | **6:27** | 118 | *10:47* | T/U |
| PV2 = PV1 return | 7:44 | 14:06 | **6:22** | 109 | | |

First named station is crew headquarters

Equipment Plan
Timetable F

| Equipment Asgnmt | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Train | **101** | | **110** | | **111** | | **120** | | | | | |
| | Miles | 187 | | 187 | | 187 | | 187 | | | 748 | Miles | |
| | Time in Service | 2:30 | | 2:30 | | 2:30 | | 2:30 | | | 10:00 | Time in Service | 81% Schedule Day |
| | Layover Time | | 0:24 | | 0:36 | | 1:24 | | | | 2:24 | Layover Time | 19% Schedule Day |
| | | Seattle | 6:06 | | | | | | Seattle | 18:30 | 12:24 | Total Time | 52% Calendar Day |
| 2 | Train | **102** | | **115** | | **124** | | | | | | | |
| | Miles | 150 | | 337 | | 187 | | | | | 674 | Miles | |
| | Time in Service | 2:37 | | 5:22 | | 2:30 | | | | | 10:29 | Time in Service | 76% Schedule Day |
| | Layover Time | | 2:52 | | 0:24 | | | | | | 3:16 | Layover Time | 24% Schedule Day |
| | | Seattle | 6:45 | | | | | | Seattle | 20:30 | 13:45 | Total Time | 57% Calendar Day |
| 3 | Train | **103** | | **114** | | **127** | | | | | | | |
| | Miles | 187 | | 337 | | 150 | | | | | 674 | Miles | |
| | Time in Service | 2:30 | | 5:22 | | 2:36 | | | | | 10:28 | Time in Service | 71% Schedule Day |
| | Layover Time | | 1:24 | | 2:52 | | | | | | 4:16 | Layover Time | 29% Schedule Day |
| | | Seattle | 8:06 | | | | | | Seattle | 22:50 | 14:44 | Total Time | 61% Calendar Day |
| 4 | Train | **104** | | **105** | | **116** | | **119** | | **128** | | | |
| | Miles | 187 | | 187 | | 187 | | 187 | | 187 | 935 | Miles | |
| | Time in Service | 2:30 | | 2:30 | | 2:30 | | 2:30 | | 2:30 | 12:30 | Time in Service | 76% Schedule Day |
| | Layover Time | | 0:36 | | 2:24 | | 0:36 | | 0:24 | | 4:00 | Layover Time | 24% Schedule Day |
| | | Portland | 6:00 | | | | | | Seattle | 22:30 | 16:30 | Total Time | 69% Calendar Day |
| 5 | Train | **107** | | **118** | | | | | | | | | |
| | Miles | 187 | | 337 | | | | | | | 524 | Miles | |
| | Time in Service | 2:30 | | 5:22 | | | | | | | 7:52 | Time in Service | 77% Schedule Day |
| | Layover Time | | 2:24 | | | | | | | | 2:24 | Layover Time | 23% Schedule Day |
| | | Seattle | 10:06 | | | | | | Vancouver | 20:22 | 10:16 | Total Time | 43% Calendar Day |
| 6 | Train | **109** | | **122** | | **125** | | | | | | | |
| | Miles | 337 | | 187 | | 187 | | | | | 711 | Miles | |
| | Time in Service | 5:22 | | 2:30 | | 2:30 | | | | | 10:22 | Time in Service | 72% Schedule Day |
| | Layover Time | | 3:24 | | 0:36 | | | | | | 4:00 | Layover Time | 28% Schedule Day |
| | | Vancouver | 8:14 | | | | | | Portland | 22:36 | 14:22 | Total Time | 60% Calendar Day |
| 7 | Train | **108** | | **123** | | | | | | | | | |
| | Miles | 337 | | 337 | | | | | | | 674 | Miles | |
| | Time in Service | 5:22 | | 5:22 | | | | | | | 10:44 | Time in Service | 79% Schedule Day |
| | Layover Time | | 2:52 | | | | | | | | 2:52 | Layover Time | 21% Schedule Day |
| | | Portland | 8:00 | | | | | | Portland | 21:36 | 13:36 | Total Time | 57% Calendar Day |
| 8 | Train | **112** | | **113** | | **126** | | | | | | | |
| | Miles | 187 | | 187 | | 187 | | | | | 561 | Miles | |
| | Time in Service | 2:30 | | 2:30 | | 2:30 | | | | | 7:30 | Time in Service | 65% Schedule Day |
| | Layover Time | | 1:36 | | 2:24 | | | | | | 4:00 | Layover Time | 35% Schedule Day |
| | | Portland | 10:00 | | | | | | Seattle | 21:30 | 11:30 | Total Time | 48% Calendar Day |
| 9 | Train | **106** | | **121** | | | | | | | | | |
| | Miles | 187 | | 187 | | | | | | | 374 | Miles | |
| | Time in Service | 2:30 | | 2:30 | | | | | | | 5:00 | Time in Service | 37% Schedule Day |
| | Layover Time | | 8:36 | | | | | | | | 8:36 | Layover Time | 63% Schedule Day |
| | | Portland | 7:00 | | | | | | Portland | 20:36 | 13:36 | Total Time | 57% Calendar Day |
| 10 | Train | **117** | | | | | | | | | | | |
| | Miles | 187 | | | | | | | | | 187 | Miles | |
| | Time in Service | 2:30 | | | | | | | | | 2:30 | Time in Service | 100% Schedule Day |
| | Layover Time | | | | | | | | | | 0:00 | Layover Time | 0% Schedule Day |
| | | Seattle | 16:06 | | | | | | Portland | 18:36 | 2:30 | Total Time | 10% Calendar Day |

One equipment set required for each assignment

Terminating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Arrive | Asgnmt | Arrive |
| 1 | 18:30 | 10 | 18:36 |
| 2 | 20:30 | 9 | 20:36 |
| 8 | 21:30 | 7 | 21:36 |
| 4 | 22:30 | 6 | 22:36 |
| 3 | 22:50 | | |

Originating Equipment

| Seattle | | Portland | |
|---|---|---|---|
| Asgnmt | Leave | Asgnmt | Leave |
| 1 | 6:06 | 4 | 6:00 |
| 2 | 6:45 | 9 | 7:00 |
| 3 | 8:06 | 7 | 8:00 |
| 5 | 10:06 | 8 | 10:00 |
| 10 | 16:06 | | |

Equipment Rotation

| Originate | Asgnmt | Miles | Seattle-Seattle Miles | Seatle time |
|---|---|---|---|---|
| Seattle | 1 | 748 | 748 | 15:36 |
| Seattle | 5 | 524 | | |
| Vancouver | 6 | 711 | | |
| Portland | 8 | 561 | 1796 | 18:36 |
| Seattle | 10 | 187 | | |
| Portland | 7 | 674 | | |
| Portland | 9 | 374 | | |
| Portland | 4 | 935 | 2170 | 9:36 |
| Seattle | 3 | 674 | 674 | 7:55 |
| Seattle | 2 | 674 | 674 | 9:36 |
| | | | | |

Each set works assignments in top to bottom order then repeats the cycle.

**Timetable F Revision A**

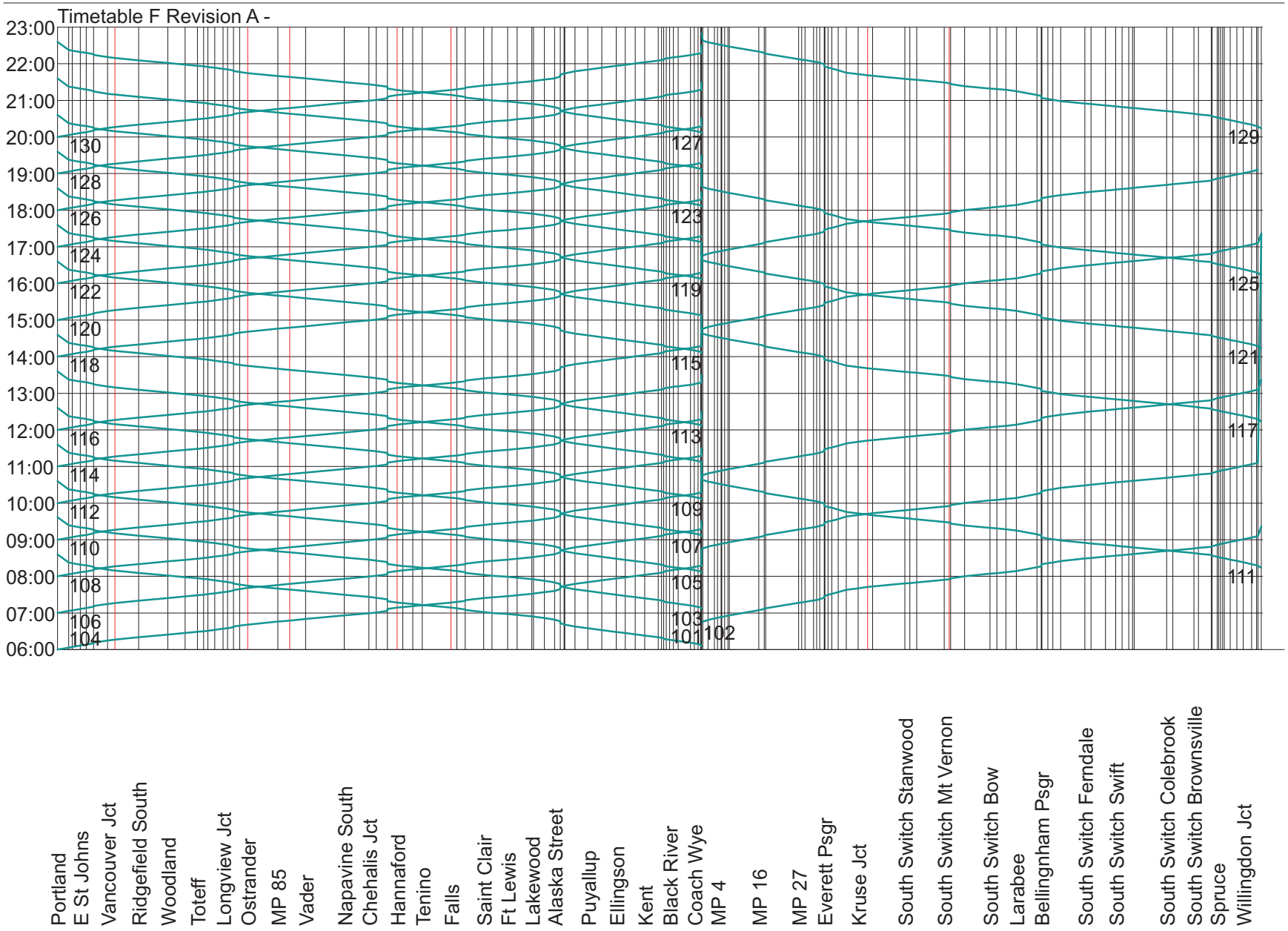
**SOUTHWARD TRAINS**

| Example Train Numbers | 129 | 127 | 125 | 123 | 121 | 119 | 117 | 115 | 113 | 111 | 109 | 107 | 105 | 103 | 101 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | **8:14 P** | | **4:14 P** | | **2:14 P** | | **12:14 P** | | | 8:14 A | | | | | |
| Bellingnham | **9:07 P** | | **5:07 P** | | **3:07 P** | | **1:07 P** | | | 9:07 A | | | | | |
| Mt Vernon | **9:27 P** | | **5:27 P** | | **3:27 P** | | **1:27 P** | | | 9:27 A | | | | | |
| Everett | **9:59 P** | | **5:59 P** | | **3:59 P** | | **1:59 P** | | | 9:59 A | | | | | |
| Edmonds | **10:17 P** | | **6:17 P** | | **4:17 P** | | **2:17 P** | | | 10:17 A | | | | | |
| | **10:51 P** | | **6:51 P** | | **4:51 P** | | **2:51 P** | | | 10:51 A | | | | | |
| Seattle | | **8:06 P** | **7:06 P** | **6:06 P** | **5:06 P** | **4:06 P** | **3:06 P** | **2:06 P** | **12:06 P** | 11:06 A | 10:06 A | 9:06 A | 8:06 A | 7:07 A | 6:06 A |
| Tukwila | | **8:18 P** | **7:18 P** | **6:18 P** | **5:18 P** | **4:18 P** | **3:18 P** | **2:18 P** | **12:18 P** | 11:18 A | 10:18 A | 9:18 A | 8:18 A | 7:19 A | 6:18 A |
| Tacoma | | **8:46 P** | **7:46 P** | **6:46 P** | **5:46 P** | **4:46 P** | **3:46 P** | **2:46 P** | **12:46 P** | 11:46 A | 10:46 A | 9:46 A | 8:46 A | 7:47 A | 6:46 A |
| Centennial | | **9:05 P** | **8:05 P** | **7:05 P** | **6:05 P** | **5:05 P** | **4:05 P** | **3:05 P** | **1:05 P** | **12:05 P** | 11:05 A | 10:05 A | 9:05 A | 8:06 A | 7:05 A |
| Centralia | | **9:22 P** | **8:22 P** | **7:22 P** | **6:22 P** | **5:22 P** | **4:22 P** | **3:22 P** | **1:22 P** | **12:22 P** | 11:22 A | 10:22 A | 9:22 A | 8:23 A | 7:22 A |
| Kelso | | **9:49 P** | **8:49 P** | **7:49 P** | **6:49 P** | **5:49 P** | **4:49 P** | **3:49 P** | **1:49 P** | **12:49 P** | 11:49 A | 10:49 A | 9:49 A | 8:50 A | 7:49 A |
| Vancouver | | **10:15 P** | **9:15 P** | **8:15 P** | **7:15 P** | **6:15 P** | **5:15 P** | **4:15 P** | **2:15 P** | **1:15 P** | **12:15 P** | 11:15 A | 10:15 A | 9:16 A | 8:15 A |
| Portland | | **10:36 P** | **9:36 P** | **8:36 P** | **7:36 P** | **6:36 P** | **5:36 P** | **4:36 P** | **2:36 P** | **1:36 P** | **12:36 P** | 11:36 A | 10:36 A | 9:37 A | 8:36 A |

**Timetable F Revision A**

**NORTHWARD TRAINS**

| Example Train Numbers | 102 | 104 | 106 | 108 | 110 | 112 | 114 | 116 | 118 | 120 | 122 | 124 | 126 | 128 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vancouver BC | 9:22 A | 11:22 A | | **1:22 P** | | | | **5:22 P** | **8:22 P** | | | | | | |
| Bellingnham | 8:16 A | 10:16 A | | **12:16 P** | | | | **4:16 P** | **6:16 P** | | | | | | |
| Mt Vernon | 7:56 A | 9:56 A | | 11:56 A | | | | **3:56 P** | **5:56 P** | | | | | | |
| Everett | 7:27 A | 9:27 A | | 11:27 A | | | | **3:27 P** | **5:27 P** | | | | | | |
| Edmonds | 7:07 A | 9:07 A | | 11:07 A | | | | **3:07 P** | **5:07 P** | | | | | | |
| | 6:45 A | 08:45 A | | 10:45 A | | | | **2:45 P** | **4:45 P** | | | | | | |
| Seattle | | 08:30 A | 9:30 A | 10:30 A | 11:30 A | **12:30 P** | **1:30 P** | **2:30 P** | **4:30 P** | **5:30 P** | **6:30 P** | **7:30 P** | **8:30 P** | **9:30 P** | **10:30 P** |
| Tukwila | | 8:07 A | 9:07 A | 10:07 A | 11:07 A | **12:07 P** | **1:07 P** | **2:07 P** | **4:07 P** | **5:07 P** | **6:07 P** | **7:07 P** | **8:07 P** | **9:07 P** | **10:07 P** |
| Tacoma | | 7:42 A | 8:42 A | 9:42 A | 10:42 A | 11:42 A | **12:42 P** | **1:42 P** | **3:42 P** | **4:42 P** | **5:42 P** | **6:42 P** | **7:42 P** | **8:42 P** | **9:42 P** |
| Centennial | | 7:20 A | 8:20 A | 9:20 A | 10:20 A | 11:20 A | **12:20 P** | **1:20 P** | **3:20 P** | **4:20 P** | **5:20 P** | **6:20 P** | **7:20 P** | **8:20 P** | **9:20 P** |
| Centralia | | 7:06 A | 8:06 A | 9:06 A | 10:06 A | 11:06 A | **12:06 P** | **1:06 P** | **3:06 P** | **4:06 P** | **5:06 P** | **6:06 P** | **7:06 P** | **8:06 P** | **9:06 P** |
| Kelso | | 6:37 A | 7:37 A | 8:37 A | 9:37 A | 10:37 A | 11:37 A | **12:37 P** | **2:37 P** | **3:37 P** | **4:37 P** | **5:37 P** | **6:37 P** | **7:37 P** | **8:37 P** |
| Vancouver | | 6:11 A | 7:11 A | 8:11 A | 9:11 A | 10:11 A | 11:11 A | **12:11 P** | **2:11 P** | **3:11 P** | **4:11 P** | **5:11 P** | **6:11 P** | **7:11 P** | **8:11 P** |
| Portland | | 6:00 A | 7:00 A | 8:00 A | 9:00 A | 10:00 A | 11:00 A | **12:00 P** | **2:00 P** | **3:00 P** | **4:00 P** | **5:00 P** | **6:00 P** | **7:00 P** | **8:00 P** |


Timetable F Revision A -
23:00
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
13:00
12:00
11:00
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08:00
07:00
06:00
130
128
126
124
122
120
118
116
114
112
110
108
106
104
127
123
119
115
113
109
107
105
103
101
102
129
125
121
117
111
Portland
E St Johns
Vancouver Jct
Ridgefield South
Woodland
Toteff
Longview Jct
Ostrander
MP 85
Vader
Napavine South
Chehalis Jct
Hannaford
Tenino
Falls
Saint Clair
Ft Lewis
Lakewood
Alaska Street
Puyallup
Ellingson
Kent
Black River
Coach Wye
MP 4
MP 16
MP 27
Everett Psgr
Kruse Jct
South Switch Stanwood
South Switch Mt Vernon
South Switch Bow
Larabee
Bellingnham Psgr
South Switch Ferndale
South Switch Swift
South Switch Colebrook
South Switch Brownsville
Spruce
Willingdon Jct

Crew Plan
Timetable F Revision A

| Assignment | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
|---|---|---|---|---|---|---|
| SEATTLE - PORTLAND | | | | | | |
| SP1 | 5:36 | 12:00 | **6:24** | 101 | *0:24* | 110 |
| SP2 | 6:36 | 13:00 | **6:24** | 103 | *0:24* | 112 |
| SP3 | 7:36 | 14:00 | **6:24** | 105 | *0:24* | 114 |
| SP4 | 13:36 | 20:00 | **6:24** | 115 | *0:24* | 124 |
| SP5 | 14:36 | 21:00 | **6:24** | 117 | *0:24* | 126 |
| SP6 | 15:36 | 22:00 | **6:24** | 119 | *0:24* | 128 |
| SP7 | 16:36 | 23:00 | **6:24** | 121 | *0:24* | 130 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| SEATTLE - VANCOUVER | | | | | | |
| SV1 | 6:15 | 19:20 | **13:05** | 102 | *6:52* | 125 |
| SV2 | 8:15 | 15:20 | **7:05** | 108 | *0:52* | 123 |
| SV3 | 10:15 | 17:20 | **7:05** | 108 | *0:52* | 121 |
| SV4 | 16:15 | 23:20 | **7:05** | 118 | *0:52* | 129 |
| PORTLAND - SEATTLE | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PS1 | 5:30 | 12:06 | **6:36** | 104 | *0:36* | 107 |
| PS2 | 6:30 | 13:06 | **6:36** | 106 | *0:36* | 109 |
| PS3 | 7:30 | 15:06 | **7:36** | 108 | *1:36* | 113 |
| PS4 | 13:30 | 21:06 | **7:36** | 118 | *1:36* | 123 |
| PS5 | 14:30 | 22:06 | **7:36** | 120 | *1:36* | 125 |
| PS6 | 15:30 | 23:06 | **7:36** | 122 | *1:36* | 127 |
| | On Duty | Off Duty | **Time On Duty** | Train | *Layover Time* | Train |
| PORTLAND - VANCOUVER | | | | | | |
| PV1 | 11:30 | 17:52 | **6:22** | 116 | *14:52* | T/U |
| PV2 = PV1 return | 7:44 | 14:06 | **6:22** | 111 | | |

First named station is crew headquarters

Equipment Plan
Timetable F Revision A

| Equipment Set | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Train | **104** | | **121** | | **130** | | | | | | | |
| | Miles | 337 | | 337 | | 187 | | | | | | 861 | Miles |
| | Time in Service | 5:22 | | 5:22 | | 2:30 | | | | | | 13:14 | Time in Service |
| | Layover Time | | 2:52 | | 0:24 | | | | | | | 3:16 | Layover Time |
| | | Portland | 6:00 | | | | | | Seattle | 22:30 | | 16:30 | Total Time |
| 2 | Train | **106** | | **109** | | **118** | | | | | | | |
| | Miles | 187 | | 187 | | 337 | | | | | | 711 | Miles |
| | Time in Service | 2:30 | | 2:30 | | 5:22 | | | | | | 10:22 | Time in Service |
| | Layover Time | | 0:36 | | 2:24 | | | | | | | 3:00 | Layover Time |
| | | Portland | 7:00 | | | | | | Vancouver | 19:22 | | 13:22 | Total Time |
| 3 | Train | **108** | | **125** | | | | | | | | | |
| | Miles | 337 | | 337 | | | | | | | | 674 | Miles |
| | Time in Service | 5:22 | | 5:22 | | | | | | | | 10:44 | Time in Service |
| | Layover Time | | 1:24 | | | | | | | | | 1:24 | Layover Time |
| | | Portland | 8:00 | | | | | | Portland | 21:36 | | 12:08 | Total Time |
| 4 | Train | **101** | | **110** | | **113** | | **130** | | **123** | | | |
| | Miles | 187 | | 187 | | 187 | | 187 | | 187 | | 935 | Miles |
| | Time in Service | 2:30 | | 2:30 | | 2:30 | | 2:30 | | 2:30 | | 12:30 | Time in Service |
| | Layover Time | | 0:24 | | 0:36 | | 0:24 | | 0:36 | | | 2:00 | Layover Time |
| | | Seattle | 6:06 | | | | | | Portland | 20:36 | | 14:30 | Total Time |
| 5 | Train | **102** | | **117** | | **126** | | | | | | | |
| | Miles | 150 | | 337 | | 187 | | | | | | 674 | Miles |
| | Time in Service | 2:37 | | 5:22 | | 2:30 | | | | | | 10:29 | Time in Service |
| | Layover Time | | 2:52 | | 0:24 | | | | | | | 3:16 | Layover Time |
| | | Seattle | 6:45 | | | | | | Seattle | 20:30 | | 13:45 | Total Time |
| 6 | Train | **103** | | **112** | | **115** | | **124** | | **127** | | | |
| | Miles | 187 | | 187 | | 187 | | 187 | | 187 | | 935 | Miles |
| | Time in Service | 2:30 | | 2:30 | | 2:30 | | 2:30 | | 2:30 | | 12:30 | Time in Service |
| | Layover Time | | 0:24 | | 1:36 | | 0:24 | | 0:36 | | | 3:00 | Layover Time |
| | | Seattle | 7:06 | | | | | | Portland | 22:36 | | 15:30 | Total Time |
| 7 | Train | **105** | | **114** | | **119** | | **128** | | | | | |
| | Miles | 187 | | 187 | | 187 | | 187 | | | | 748 | Miles |
| | Time in Service | 2:30 | | 2:30 | | 2:30 | | 2:30 | | | | 10:00 | Time in Service |
| | Layover Time | | 0:24 | | 2:36 | | 0:24 | | | | | 3:24 | Layover Time |
| | | Seattle | 8:06 | | | | | | Seattle | 21:30 | | 13:24 | Total Time |
| 8 | Train | **107** | | **116** | | **129** | | | | | | | |
| | Miles | 187 | | 337 | | 150 | | | | | | 674 | Miles |
| | Time in Service | 2:30 | | 5:22 | | 2:37 | | | | | | 10:29 | Time in Service |
| | Layover Time | | 0:24 | | 2:52 | | | | | | | 3:16 | Layover Time |
| | | Seattle | 9:06 | | | | | | Seattle | 22:50 | | 13:45 | Total Time |
| 9 | Train | **111** | | **120** | | | | | | | | | |
| | Miles | 337 | | 187 | | | | | | | | 524 | Miles |
| | Time in Service | 5:22 | | 2:30 | | | | | | | | 7:52 | Time in Service |
| | Layover Time | | 2:24 | | | | | | | | | 2:24 | Layover Time |
| | | Vancouver | 8:14 | | | | | | Seattle | 18:30 | | 10:16 | Total Time |

| | |
|---|---|
| 80% | Schedule Day |
| 20% | Schedule Day |
| 69% | Calendar Day |
| 78% | Schedule Day |
| 22% | Schedule Day |
| 56% | Calendar Day |
| 88% | Schedule Day |
| 12% | Schedule Day |
| 51% | Calendar Day |
| 86% | Schedule Day |
| 14% | Schedule Day |
| 60% | Calendar Day |
| 76% | Schedule Day |
| 24% | Schedule Day |
| 57% | Calendar Day |
| 81% | Schedule Day |
| 19% | Schedule Day |
| 65% | Calendar Day |
| 75% | Schedule Day |
| 25% | Schedule Day |
| 56% | Calendar Day |
| 76% | Schedule Day |
| 24% | Schedule Day |
| 57% | Calendar Day |
| 77% | Schedule Day |
| 23% | Schedule Day |
| 43% | Calendar Day |

| Seattle | | Portland | |
|---|---|---|---|
| Set | Arrive | Set | Arrive |
| 9 | 18:30 | 4 | 20:36 |
| 5 | 20:30 | 3 | 21:36 |
| 7 | 21:30 | 6 | 22:36 |
| 1 | 22:30 | | |
| 8 | 22:50 | | |

| Seattle | | Portland | |
|---|---|---|---|
| Set | Leave | Set | Leave |
| 4 | 6:06 | 1 | 6:00 |
| 5 | 6:45 | 2 | 7:00 |
| 6 | 7:06 | 3 | 8:00 |
| 7 | 8:06 | | |
| 8 | 9:06 | | |

| Originate | Asgnmt | Miles | Seattle-Seattle Miles | Seatle time |
|---|---|---|---|---|
| Seattle | 4 | 935 | | |
| Portland | 3 | 674 | | |
| Portland | 1 | 861 | 2470 | 10:36 |
| Seattle | 8 | 674 | 674 | 9:16 |
| Seattle | 7 | 748 | 748 | 9:15 |
| Seattle | 5 | 674 | 674 | 10:36 |
| Seattle | 6 | 935 | 935 | |
| Portland | 2 | 711 | | |
| Vancouver | 9 | 524 | 1235 | 11:36 |
| | | | | |
| | | | | |
| | | | | |

# Appendix D:  Station Pair Summary

Appendix D
Station Pair Forecast Summary

| Station Pairs | | FY 2002 Actual (Unlinked Trips) | | | FY 02 Estimated (Linked Trips) | | | FY 08 Build Estimate | | | FY 23 Build Estimate | | | FY 23 Rev A Build Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| VAC | BEL | 5,203 | 301,764 | $67,135 | 5,203 | 301,764 | $67,135 | 14,674 | 851,078 | $189,343 | 47,971 | 2,782,340 | $619,001 | 65,504 | 3,799,221 | $845,231 |
| VAC | MVW | 4,355 | 365,813 | $69,713 | 4,145 | 348,206 | $66,358 | 11,126 | 934,582 | $178,104 | 30,683 | 2,577,387 | $491,176 | 39,740 | 3,338,163 | $636,158 |
| VAC | EVR | 8,923 | 1,097,577 | $185,626 | 8,494 | 1,044,750 | $176,692 | 23,193 | 2,852,717 | $482,461 | 63,961 | 7,867,214 | $1,330,530 | 82,841 | 10,189,406 | $1,723,267 |
| VAC | EDM | 11,725 | 1,618,067 | $277,689 | 11,826 | 1,631,966 | $280,074 | 34,170 | 4,715,461 | $809,255 | 76,212 | 10,517,269 | $1,804,947 | 90,251 | 12,454,665 | $2,137,438 |
| VAC | SEA | 64,279 | 10,027,533 | $1,700,191 | 64,831 | 10,113,664 | $1,714,794 | 193,622 | 30,205,014 | $5,121,328 | 431,113 | 67,253,584 | $11,402,996 | 510,528 | 79,642,426 | $13,503,552 |
| VAC | TUK | 0 | 0 | $0 | 0 | 0 | $0 | 13,961 | 2,387,393 | $339,471 | 52,393 | 8,959,169 | $1,273,931 | 62,044 | 10,609,546 | $1,508,603 |
| VAC | TAC | 0 | 0 | $0 | 0 | 0 | $0 | 977 | 191,462 | $26,560 | 2,945 | 577,151 | $80,065 | 3,762 | 737,305 | $102,282 |
| VAC | OLW | 0 | 0 | $0 | 0 | 0 | $0 | 227 | 51,658 | $6,994 | 659 | 150,158 | $20,331 | 845 | 192,679 | $26,088 |
| VAC | CTL | 0 | 0 | $0 | 0 | 0 | $0 | 121 | 30,225 | $4,038 | 308 | 76,981 | $10,285 | 379 | 94,749 | $12,658 |
| VAC | KEL | 0 | 0 | $0 | 0 | 0 | $0 | 53 | 15,637 | $2,046 | 151 | 44,178 | $5,782 | 183 | 53,525 | $7,005 |
| VAC | VAN | 0 | 0 | $0 | 0 | 0 | $0 | 208 | 69,186 | $8,925 | 596 | 197,863 | $25,526 | 702 | 233,212 | $30,086 |
| VAC | PDX | 0 | 0 | $0 | 0 | 0 | $0 | 1,242 | 424,720 | $54,617 | 3,284 | 1,123,022 | $144,417 | 3,834 | 1,311,137 | $168,608 |
| VAC | SLM | 0 | 0 | $0 | 0 | 0 | $0 | 66 | 26,084 | $3,307 | 134 | 52,741 | $6,686 | 142 | 56,169 | $7,121 |
| VAC | ALY | 0 | 0 | $0 | 0 | 0 | $0 | 38 | 16,037 | $2,021 | 80 | 33,663 | $4,241 | 89 | 37,455 | $4,719 |
| VAC | EUG | 0 | 0 | $0 | 0 | 0 | $0 | 75 | 35,048 | $4,380 | 161 | 74,805 | $9,349 | 142 | 66,265 | $8,282 |
| BEL | MVW | 396 | 10,302 | $3,199 | 387 | 10,066 | $3,126 | 836 | 21,744 | $6,753 | 1,691 | 43,969 | $13,655 | 1,992 | 51,792 | $16,085 |
| BEL | EVR | 1,199 | 77,951 | $15,094 | 1,172 | 76,169 | $14,749 | 2,489 | 161,801 | $31,331 | 5,073 | 329,728 | $63,849 | 5,975 | 388,398 | $75,210 |
| BEL | EDM | 4,351 | 348,074 | $61,249 | 4,129 | 330,307 | $58,123 | 8,811 | 704,880 | $124,035 | 16,470 | 1,317,593 | $231,851 | 18,777 | 1,502,173 | $264,331 |
| BEL | SEA | 33,321 | 3,265,494 | $544,406 | 31,620 | 3,098,806 | $516,617 | 62,928 | 6,166,981 | $1,028,127 | 119,950 | 11,755,130 | $1,959,754 | 136,754 | 13,401,896 | $2,234,294 |
| BEL | TUK | 0 | 0 | $0 | 678 | 76,638 | $11,967 | 12,997 | 1,468,640 | $229,329 | 37,924 | 4,285,359 | $669,161 | 43,236 | 4,885,691 | $762,903 |
| BEL | TAC | 0 | 0 | $0 | 467 | 64,433 | $9,581 | 5,916 | 816,465 | $121,405 | 12,879 | 1,777,352 | $264,285 | 15,107 | 2,084,811 | $310,002 |
| BEL | OLW | 0 | 0 | $0 | 188 | 31,895 | $4,540 | 2,376 | 403,947 | $57,503 | 5,304 | 901,616 | $128,348 | 6,321 | 1,074,621 | $152,975 |
| BEL | CTL | 0 | 0 | $0 | 96 | 18,337 | $2,553 | 803 | 154,267 | $21,477 | 1,689 | 324,243 | $45,141 | 1,940 | 372,525 | $51,863 |
| BEL | KEL | 0 | 0 | $0 | 75 | 17,566 | $2,368 | 708 | 166,458 | $22,436 | 1,680 | 394,819 | $53,217 | 1,923 | 451,962 | $60,919 |
| BEL | VAN | 0 | 0 | $0 | 64 | 17,565 | $2,318 | 488 | 133,689 | $17,643 | 1,143 | 313,069 | $41,316 | 1,284 | 351,752 | $46,421 |
| BEL | PDX | 0 | 0 | $0 | 581 | 165,102 | $21,690 | 4,233 | 1,202,142 | $157,929 | 9,872 | 2,803,768 | $368,340 | 10,855 | 3,082,858 | $405,005 |
| BEL | SLM | 0 | 0 | $0 | 118 | 39,766 | $5,122 | 271 | 91,209 | $11,748 | 1,409 | 474,711 | $61,142 | 1,444 | 486,510 | $62,662 |
| BEL | ALY | 0 | 0 | $0 | 69 | 25,185 | $3,217 | 158 | 57,624 | $7,361 | 843 | 307,848 | $39,324 | 869 | 317,004 | $40,494 |
| BEL | EUG | 0 | 0 | $0 | 136 | 55,488 | $7,014 | 323 | 131,775 | $16,656 | 1,739 | 709,373 | $89,663 | 1,800 | 734,343 | $92,819 |
| MVW | EVR | 271 | 10,584 | $2,583 | 271 | 10,562 | $2,577 | 476 | 18,561 | $4,529 | 766 | 29,871 | $7,289 | 777 | 30,322 | $7,399 |
| MVW | EDM | 444 | 23,997 | $4,061 | 456 | 24,642 | $4,170 | 912 | 49,267 | $8,337 | 1,372 | 74,085 | $12,536 | 1,456 | 78,639 | $13,307 |
| MVW | SEA | 11,078 | 797,630 | $127,367 | 11,376 | 819,081 | $130,792 | 21,235 | 1,528,919 | $244,141 | 32,762 | 2,358,857 | $376,667 | 34,776 | 2,503,842 | $399,818 |
| MVW | TUK | 0 | 0 | $0 | 0 | 0 | $0 | 5,778 | 502,659 | $84,672 | 11,292 | 982,411 | $165,485 | 11,986 | 1,042,794 | $175,657 |
| MVW | TAC | 0 | 0 | $0 | 830 | 92,960 | $14,550 | 8,317 | 931,472 | $145,792 | 13,812 | 1,546,928 | $242,122 | 14,711 | 1,647,591 | $257,877 |
| MVW | OLW | 0 | 0 | $0 | 132 | 19,029 | $2,803 | 1,469 | 211,540 | $31,158 | 3,286 | 473,118 | $69,686 | 3,647 | 525,117 | $77,345 |
| MVW | CTL | 0 | 0 | $0 | 168 | 27,807 | $3,977 | 1,429 | 237,136 | $33,913 | 3,090 | 512,940 | $73,357 | 3,359 | 557,596 | $79,743 |
| MVW | KEL | 0 | 0 | $0 | 63 | 13,262 | $1,820 | 538 | 112,411 | $15,428 | 1,284 | 268,309 | $36,825 | 1,397 | 291,871 | $40,059 |
| MVW | VAN | 0 | 0 | $0 | 112 | 27,795 | $3,718 | 721 | 178,840 | $23,920 | 1,746 | 432,949 | $57,907 | 1,925 | 477,312 | $63,841 |
| MVW | PDX | 0 | 0 | $0 | 382 | 98,486 | $13,101 | 2,555 | 659,068 | $87,671 | 5,996 | 1,547,060 | $205,795 | 6,344 | 1,636,860 | $217,740 |
| MVW | SLM | 0 | 0 | $0 | 82 | 25,502 | $3,314 | 170 | 52,950 | $6,881 | 925 | 287,737 | $37,392 | 913 | 283,956 | $36,901 |
| MVW | ALY | 0 | 0 | $0 | 48 | 16,272 | $2,094 | 99 | 33,640 | $4,330 | 549 | 186,199 | $23,967 | 546 | 185,140 | $23,831 |
| MVW | EUG | 0 | 0 | $0 | 96 | 36,672 | $4,664 | 203 | 77,679 | $9,879 | 1,127 | 430,521 | $54,751 | 1,130 | 431,785 | $54,911 |

Appendix D
Station Pair Forecast Summary

| Station Pairs | | FY 2002 Actual (Unlinked Trips) | | | FY 02 Estimated (Linked Trips) | | | FY 08 Build Estimate | | | FY 23 Build Estimate | | | FY 23 Rev A Build Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| EVR | EDM | 188 | 2,814 | $842 | 193 | 2,890 | $865 | 368 | 5,521 | $1,652 | 518 | 7,768 | $2,324 | 550 | 8,245 | $2,467 |
| EVR | SEA | 4,367 | 144,095 | $33,326 | 4,484 | 147,970 | $34,223 | 8,043 | 265,415 | $61,386 | 11,626 | 383,653 | $88,732 | 12,340 | 407,234 | $94,186 |
| EVR | TUK | 0 | 0 | $0 | 0 | 0 | $0 | 2,446 | 117,405 | $24,875 | 3,983 | 191,182 | $40,507 | 4,228 | 202,932 | $42,996 |
| EVR | TAC | 0 | 0 | $0 | 325 | 23,725 | $4,240 | 4,884 | 356,549 | $63,715 | 7,008 | 511,557 | $91,415 | 8,051 | 587,710 | $105,023 |
| EVR | OLW | 0 | 0 | $0 | 241 | 25,345 | $4,037 | 4,377 | 459,587 | $73,206 | 8,502 | 892,742 | $142,201 | 10,423 | 1,094,419 | $174,325 |
| EVR | CTL | 0 | 0 | $0 | 157 | 19,972 | $3,028 | 1,535 | 194,888 | $29,548 | 2,950 | 374,656 | $56,803 | 3,417 | 433,985 | $65,798 |
| EVR | KEL | 0 | 0 | $0 | 163 | 27,686 | $3,941 | 1,616 | 274,740 | $39,110 | 3,483 | 592,066 | $84,282 | 4,040 | 686,816 | $97,770 |
| EVR | VAN | 0 | 0 | $0 | 428 | 89,361 | $12,265 | 3,087 | 645,173 | $88,549 | 6,623 | 1,384,210 | $189,981 | 7,486 | 1,564,664 | $214,748 |
| EVR | PDX | 0 | 0 | $0 | 1,281 | 280,587 | $38,225 | 8,839 | 1,935,677 | $263,703 | 18,819 | 4,121,310 | $561,458 | 20,775 | 4,549,802 | $619,833 |
| EVR | SLM | 0 | 0 | $0 | 287 | 78,064 | $10,312 | 581 | 158,100 | $20,884 | 3,230 | 878,627 | $116,063 | 3,249 | 883,671 | $116,729 |
| EVR | ALY | 0 | 0 | $0 | 171 | 51,300 | $6,695 | 344 | 103,191 | $13,466 | 1,927 | 578,136 | $75,447 | 1,949 | 584,571 | $76,286 |
| EVR | EUG | 0 | 0 | $0 | 344 | 117,992 | $15,169 | 702 | 240,798 | $30,956 | 3,892 | 1,335,089 | $171,635 | 3,959 | 1,358,097 | $174,593 |
| EDM | SEA | 2,724 | 49,029 | $17,302 | 2,799 | 50,382 | $17,780 | 4,144 | 74,591 | $26,323 | 4,960 | 89,272 | $31,503 | 6,130 | 110,337 | $38,937 |
| EDM | TUK | 0 | 0 | $0 | 0 | 0 | $0 | 1,171 | 38,645 | $9,890 | 1,548 | 51,091 | $13,075 | 1,914 | 63,146 | $16,160 |
| EDM | TAC | 0 | 0 | $0 | 0 | 0 | $0 | 2,520 | 146,136 | $28,522 | 4,809 | 278,904 | $54,434 | 4,718 | 273,660 | $53,411 |
| EDM | OLW | 0 | 0 | $0 | 0 | 0 | $0 | 556 | 50,023 | $8,337 | 1,709 | 153,841 | $25,640 | 1,718 | 154,622 | $25,770 |
| EDM | CTL | 0 | 0 | $0 | 0 | 0 | $0 | 425 | 47,566 | $7,445 | 1,418 | 158,795 | $24,854 | 1,402 | 156,968 | $24,568 |
| EDM | KEL | 0 | 0 | $0 | 0 | 0 | $0 | 627 | 97,123 | $14,083 | 2,341 | 362,859 | $52,615 | 2,314 | 358,685 | $52,009 |
| EDM | VAN | 0 | 0 | $0 | 0 | 0 | $0 | 2,891 | 560,888 | $77,946 | 15,670 | 3,039,963 | $422,461 | 15,723 | 3,050,239 | $423,889 |
| EDM | PDX | 0 | 0 | $0 | 0 | 0 | $0 | 12,988 | 2,649,630 | $365,103 | 44,993 | 9,178,475 | $1,264,740 | 45,145 | 9,209,502 | $1,269,015 |
| EDM | SLM | 0 | 0 | $0 | 0 | 0 | $0 | 745 | 191,488 | $25,486 | 9,805 | 2,520,005 | $335,396 | 9,577 | 2,461,391 | $327,595 |
| EDM | ALY | 0 | 0 | $0 | 0 | 0 | $0 | 445 | 126,771 | $16,647 | 5,868 | 1,672,461 | $219,620 | 5,732 | 1,633,560 | $214,512 |
| EDM | EUG | 0 | 0 | $0 | 0 | 0 | $0 | 913 | 299,616 | $38,703 | 11,837 | 3,882,515 | $501,531 | 11,562 | 3,792,210 | $489,866 |
| SEA | TUK | 59 | 889 | $394 | 61 | 914 | $405 | 166 | 2,490 | $1,104 | 202 | 3,034 | $1,345 | 250 | 3,750 | $1,662 |
| SEA | TAC | 8,398 | 335,903 | $80,665 | 8,601 | 344,043 | $82,620 | 14,593 | 583,716 | $140,176 | 23,784 | 951,376 | $228,468 | 23,337 | 933,489 | $224,172 |
| SEA | OLW | 11,738 | 845,170 | $147,427 | 10,589 | 762,441 | $132,996 | 33,824 | 2,435,351 | $424,810 | 63,831 | 4,595,808 | $801,669 | 64,155 | 4,619,156 | $805,742 |
| SEA | CTL | 6,292 | 591,451 | $104,499 | 6,251 | 587,592 | $103,817 | 17,114 | 1,608,704 | $284,229 | 34,427 | 3,236,097 | $571,760 | 34,031 | 3,198,873 | $565,183 |
| SEA | KEL | 12,205 | 1,672,114 | $251,413 | 12,126 | 1,661,203 | $249,772 | 32,869 | 4,503,114 | $677,070 | 65,505 | 8,974,160 | $1,349,319 | 64,751 | 8,870,932 | $1,333,798 |
| SEA | VAN | 35,887 | 6,316,197 | $921,678 | 35,465 | 6,241,776 | $910,818 | 80,155 | 14,107,366 | $2,058,587 | 153,135 | 26,951,720 | $3,932,872 | 153,652 | 27,042,827 | $3,946,167 |
| SEA | PDX | 202,595 | 37,682,694 | $5,602,405 | 200,208 | 37,238,698 | $5,536,394 | 446,661 | 83,079,019 | $12,351,619 | 861,276 | 160,197,249 | $23,817,029 | 864,187 | 160,738,779 | $23,897,540 |
| SEA | SLM | 13,395 | 3,201,442 | $418,888 | 13,727 | 3,280,664 | $429,254 | 14,692 | 3,511,479 | $459,454 | 37,656 | 8,999,787 | $1,177,564 | 36,780 | 8,790,458 | $1,150,175 |
| SEA | ALY | 8,295 | 2,214,651 | $286,979 | 8,500 | 2,269,455 | $294,080 | 9,207 | 2,458,264 | $318,546 | 24,280 | 6,482,857 | $840,060 | 23,716 | 6,332,069 | $820,521 |
| SEA | EUG | 18,117 | 5,616,395 | $696,433 | 18,566 | 5,755,377 | $713,667 | 20,031 | 6,209,669 | $769,999 | 54,189 | 16,798,602 | $2,083,027 | 52,929 | 16,407,876 | $2,034,577 |
| TUK | TAC | 61 | 1,535 | $594 | 63 | 1,572 | $608 | 128 | 3,207 | $1,240 | 208 | 5,203 | $2,012 | 204 | 5,106 | $1,974 |
| TUK | OLW | 103 | 5,889 | $1,408 | 93 | 5,313 | $1,270 | 362 | 20,607 | $4,927 | 682 | 38,857 | $9,291 | 685 | 39,054 | $9,338 |
| TUK | CTL | 155 | 12,267 | $2,630 | 154 | 12,187 | $2,613 | 523 | 41,304 | $8,857 | 1,054 | 83,228 | $17,847 | 1,041 | 82,271 | $17,641 |
| TUK | KEL | 259 | 31,544 | $5,875 | 257 | 31,338 | $5,836 | 891 | 108,665 | $20,238 | 1,801 | 219,702 | $40,917 | 1,780 | 217,174 | $40,446 |
| TUK | VAN | 1,005 | 161,796 | $24,785 | 993 | 159,889 | $24,493 | 2,888 | 464,982 | $71,229 | 5,614 | 903,910 | $138,467 | 5,633 | 906,966 | $138,935 |
| TUK | PDX | 3,917 | 669,726 | $105,210 | 3,870 | 661,835 | $103,971 | 11,091 | 1,896,549 | $297,937 | 21,685 | 3,708,206 | $582,539 | 21,759 | 3,720,741 | $584,508 |
| TUK | SLM | 123 | 27,597 | $3,641 | 126 | 28,279 | $3,731 | 139 | 31,205 | $4,117 | 561 | 125,567 | $16,566 | 548 | 122,646 | $16,180 |
| TUK | ALY | 114 | 28,788 | $3,714 | 117 | 29,500 | $3,806 | 132 | 33,226 | $4,286 | 558 | 140,672 | $18,148 | 545 | 137,400 | $17,726 |
| TUK | EUG | 129 | 38,146 | $5,298 | 133 | 39,090 | $5,430 | 150 | 44,168 | $6,135 | 701 | 206,825 | $28,727 | 685 | 202,015 | $28,059 |

Appendix D
Station Pair Forecast Summary

| Station Pairs | | FY 2002 Actual (Unlinked Trips) | | | FY 02 Estimated (Linked Trips) | | | FY 08 Build Estimate | | | FY 23 Build Estimate | | | FY 23 Rev A Build Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| TAC | OLW | 1,564 | 50,035 | $7,060 | 1,562 | 49,974 | $7,052 | 4,115 | 131,687 | $18,581 | 6,528 | 208,905 | $29,477 | 7,123 | 227,951 | $32,164 |
| TAC | CTL | 1,853 | 100,080 | $18,559 | 1,854 | 100,125 | $18,568 | 5,077 | 274,143 | $50,838 | 9,668 | 522,094 | $96,819 | 10,132 | 547,153 | $101,466 |
| TAC | KEL | 2,405 | 233,265 | $43,481 | 2,406 | 233,369 | $43,500 | 6,575 | 637,747 | $118,877 | 12,462 | 1,208,793 | $225,320 | 13,060 | 1,266,812 | $236,135 |
| TAC | VAN | 10,797 | 1,468,356 | $212,178 | 10,796 | 1,468,314 | $212,172 | 24,907 | 3,387,349 | $489,473 | 51,184 | 6,961,007 | $1,005,867 | 53,173 | 7,231,565 | $1,044,963 |
| TAC | PDX | 48,592 | 7,094,454 | $1,021,733 | 48,591 | 7,094,249 | $1,021,704 | 110,721 | 16,165,256 | $2,328,097 | 230,198 | 33,608,839 | $4,840,297 | 239,145 | 34,915,136 | $5,028,428 |
| TAC | SLM | 3,377 | 672,050 | $90,293 | 3,375 | 671,539 | $90,224 | 3,560 | 708,459 | $95,185 | 10,654 | 2,120,087 | $284,843 | 10,695 | 2,128,324 | $285,950 |
| TAC | ALY | 1,770 | 401,840 | $51,968 | 1,769 | 401,535 | $51,928 | 1,882 | 427,110 | $55,236 | 5,807 | 1,318,275 | $170,485 | 5,830 | 1,323,397 | $171,147 |
| TAC | EUG | 3,056 | 825,106 | $109,604 | 3,054 | 824,479 | $109,521 | 3,215 | 868,103 | $115,315 | 10,166 | 2,744,928 | $364,625 | 10,206 | 2,755,593 | $366,042 |
| OLW | CTL | 463 | 10,182 | $3,466 | 463 | 10,182 | $3,466 | 811 | 17,840 | $6,074 | 1,411 | 31,031 | $10,564 | 1,437 | 31,609 | $10,761 |
| OLW | KEL | 936 | 60,813 | $9,617 | 936 | 60,814 | $9,617 | 1,635 | 106,276 | $16,806 | 2,829 | 183,910 | $29,084 | 2,882 | 187,333 | $29,625 |
| OLW | VAN | 3,954 | 411,241 | $52,620 | 3,954 | 411,222 | $52,617 | 7,358 | 765,243 | $97,915 | 14,663 | 1,524,939 | $195,121 | 14,815 | 1,540,772 | $197,147 |
| OLW | PDX | 15,898 | 1,812,323 | $289,183 | 15,897 | 1,812,241 | $289,170 | 29,303 | 3,340,589 | $533,041 | 59,168 | 6,745,168 | $1,076,293 | 59,782 | 6,815,202 | $1,087,468 |
| OLW | SLM | 1,239 | 206,994 | $27,624 | 1,239 | 206,871 | $27,607 | 1,110 | 185,418 | $24,744 | 3,757 | 627,342 | $83,720 | 3,721 | 621,325 | $82,917 |
| OLW | ALY | 817 | 159,297 | $21,299 | 816 | 159,202 | $21,286 | 738 | 143,999 | $19,253 | 2,583 | 503,603 | $67,334 | 2,558 | 498,773 | $66,689 |
| OLW | EUG | 1,638 | 389,830 | $48,718 | 1,637 | 389,598 | $48,689 | 1,466 | 348,913 | $43,605 | 5,269 | 1,254,126 | $156,731 | 5,219 | 1,242,097 | $155,228 |
| CTL | KEL | 295 | 12,664 | $3,090 | 294 | 12,663 | $3,090 | 506 | 21,739 | $5,304 | 770 | 33,102 | $8,076 | 829 | 35,663 | $8,701 |
| CTL | VAN | 532 | 43,636 | $8,272 | 532 | 43,626 | $8,270 | 981 | 80,427 | $15,246 | 1,743 | 142,946 | $27,098 | 1,800 | 147,606 | $27,981 |
| CTL | PDX | 4,027 | 370,453 | $64,704 | 4,026 | 370,374 | $64,690 | 7,362 | 677,312 | $118,301 | 13,255 | 1,219,477 | $212,996 | 13,687 | 1,259,238 | $219,941 |
| CTL | SLM | 423 | 61,343 | $8,739 | 423 | 61,310 | $8,734 | 344 | 49,825 | $7,098 | 1,272 | 184,462 | $26,279 | 1,280 | 185,670 | $26,451 |
| CTL | ALY | 271 | 46,842 | $6,254 | 271 | 46,817 | $6,250 | 222 | 38,377 | $5,123 | 851 | 147,199 | $19,652 | 856 | 148,163 | $19,781 |
| CTL | EUG | 519 | 112,199 | $14,245 | 519 | 112,140 | $14,237 | 421 | 91,004 | $11,554 | 1,669 | 360,423 | $45,760 | 1,680 | 362,783 | $46,060 |
| KEL | VAN | 408 | 15,915 | $4,610 | 408 | 15,912 | $4,609 | 735 | 28,654 | $8,299 | 1,306 | 50,953 | $14,757 | 1,349 | 52,615 | $15,239 |
| KEL | PDX | 2,785 | 136,480 | $33,922 | 2,785 | 136,451 | $33,915 | 4,964 | 243,235 | $60,456 | 8,940 | 438,072 | $108,882 | 9,232 | 452,355 | $112,432 |
| KEL | SLM | 370 | 37,778 | $5,511 | 370 | 37,758 | $5,509 | 296 | 30,148 | $4,398 | 1,120 | 114,196 | $16,660 | 1,127 | 114,944 | $16,769 |
| KEL | ALY | 236 | 30,653 | $4,841 | 236 | 30,637 | $4,839 | 190 | 24,681 | $3,898 | 747 | 97,151 | $15,344 | 752 | 97,788 | $15,444 |
| KEL | EUG | 653 | 112,961 | $15,162 | 653 | 112,901 | $15,154 | 522 | 90,235 | $12,112 | 2,134 | 369,181 | $49,553 | 2,148 | 371,598 | $49,877 |
| VAN | PDX | 1,452 | 14,517 | $9,278 | 1,452 | 14,517 | $9,278 | 2,243 | 22,426 | $14,333 | 3,408 | 34,083 | $21,782 | 3,519 | 35,193 | $22,492 |
| VAN | SLM | 336 | 21,188 | $4,090 | 334 | 21,030 | $4,059 | 344 | 21,654 | $4,180 | 873 | 54,968 | $10,610 | 861 | 54,248 | $10,471 |
| VAN | ALY | 311 | 28,345 | $4,892 | 309 | 28,134 | $4,855 | 321 | 29,233 | $5,045 | 850 | 77,392 | $13,355 | 839 | 76,378 | $13,180 |
| VAN | EUG | 802 | 107,535 | $16,122 | 796 | 106,731 | $16,001 | 823 | 110,273 | $16,532 | 2,273 | 304,638 | $45,671 | 2,244 | 300,646 | $45,073 |
| PDX | SLM | 17,840 | 945,497 | $130,957 | 17,706 | 938,426 | $129,978 | 18,457 | 978,202 | $135,487 | 45,349 | 2,403,518 | $332,901 | 44,755 | 2,372,025 | $328,539 |
| PDX | ALY | 10,271 | 831,911 | $107,513 | 10,194 | 825,689 | $106,709 | 10,713 | 867,761 | $112,146 | 27,374 | 2,217,280 | $286,553 | 27,015 | 2,188,227 | $282,798 |
| PDX | EUG | 38,325 | 4,752,250 | $634,501 | 38,038 | 4,716,711 | $629,756 | 40,036 | 4,964,492 | $662,839 | 104,753 | 12,989,344 | $1,734,285 | 103,380 | 12,819,145 | $1,711,561 |
| SLM | ALY | 993 | 27,813 | $4,877 | 989 | 27,699 | $4,857 | 1,042 | 29,173 | $5,115 | 1,687 | 47,224 | $8,280 | 1,668 | 46,690 | $8,187 |
| SLM | EUG | 3,589 | 254,795 | $31,869 | 3,566 | 253,192 | $31,668 | 3,692 | 262,165 | $32,791 | 8,661 | 614,924 | $76,912 | 8,599 | 610,554 | $76,366 |
| ALY | EUG | 594 | 25,530 | $5,367 | 589 | 25,335 | $5,326 | 608 | 26,128 | $5,493 | 1,098 | 47,219 | $9,927 | 1,086 | 46,704 | $9,819 |
| Total | | 659,064 | 99,481,090 | $14,899,935 | 661,904 | 100,537,952 | $15,030,881 | 1,488,150 | 225,459,949 | $34,280,123 | 3,191,468 | 493,929,930 | $74,568,346 | 3,397,787 | 520,804,411 | $79,063,634 |

| Station Pairs | | FY 23 Rev A-Scott Rd Build Estimate | | | FY 08- Fare Increase Estimate | | | FY 23 Rev A Fare Incr. Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| VAC | BEL | 90,255 | 5,234,780 | $1,164,607 | 11,734 | 680,567 | $186,350 | 47,467 | 2,753,062 | $895,173 |
| VAC | MVW | 45,765 | 3,844,276 | $732,608 | 9,099 | 764,292 | $179,264 | 30,355 | 2,549,828 | $710,196 |
| VAC | EVR | 95,401 | 11,734,267 | $1,984,539 | 18,967 | 2,332,924 | $485,602 | 63,277 | 7,783,095 | $1,923,828 |
| VAC | EDM | 96,612 | 13,332,408 | $2,288,074 | 29,533 | 4,075,608 | $860,856 | 77,291 | 10,666,161 | $2,675,345 |
| VAC | SEA | 546,508 | 85,255,234 | $14,455,216 | 167,349 | 26,106,416 | $5,447,879 | 437,216 | 68,205,686 | $16,901,855 |
| VAC | TUK | 66,417 | 11,357,255 | $1,614,922 | 12,067 | 2,063,442 | $361,116 | 53,135 | 9,086,003 | $1,888,258 |
| VAC | TAC | 4,230 | 829,133 | $115,021 | 792 | 155,262 | $26,509 | 2,744 | 537,824 | $109,045 |
| VAC | OLW | 967 | 220,404 | $29,842 | 184 | 41,923 | $6,986 | 624 | 142,253 | $28,150 |
| VAC | CTL | 396 | 99,012 | $13,228 | 100 | 24,939 | $4,101 | 286 | 71,419 | $13,945 |
| VAC | KEL | 181 | 53,016 | $6,938 | 43 | 12,477 | $2,010 | 132 | 38,660 | $7,395 |
| VAC | VAN | 799 | 265,340 | $34,230 | 169 | 56,087 | $8,905 | 499 | 165,762 | $31,254 |
| VAC | PDX | 4,160 | 1,422,556 | $182,936 | 1,031 | 352,531 | $55,796 | 2,927 | 1,001,089 | $188,153 |
| VAC | SLM | 145 | 57,413 | $7,278 | 66 | 26,084 | $4,070 | 142 | 56,169 | $10,407 |
| VAC | ALY | 90 | 38,277 | $4,823 | 38 | 16,037 | $2,487 | 89 | 37,455 | $6,897 |
| VAC | EUG | 145 | 67,715 | $8,463 | 75 | 35,048 | $5,391 | 142 | 66,265 | $12,104 |
| BEL | MVW | 1,992 | 51,792 | $16,085 | 721 | 18,738 | $7,162 | 1,571 | 40,844 | $18,540 |
| BEL | EVR | 5,975 | 388,398 | $75,210 | 2,145 | 139,431 | $33,230 | 4,712 | 306,298 | $86,687 |
| BEL | EDM | 18,777 | 1,502,173 | $264,331 | 7,758 | 620,616 | $134,409 | 15,635 | 1,250,798 | $321,681 |
| BEL | SEA | 136,754 | 13,401,896 | $2,234,294 | 55,406 | 5,429,758 | $1,114,118 | 113,870 | 11,159,212 | $2,719,054 |
| BEL | TUK | 43,236 | 4,885,691 | $762,903 | 11,443 | 1,293,074 | $248,510 | 36,001 | 4,068,116 | $928,425 |
| BEL | TAC | 15,107 | 2,084,811 | $310,002 | 4,971 | 685,939 | $125,534 | 11,628 | 1,604,637 | $348,727 |
| BEL | OLW | 6,321 | 1,074,621 | $152,975 | 1,989 | 338,211 | $59,256 | 4,888 | 830,876 | $172,867 |
| BEL | CTL | 1,940 | 372,525 | $51,863 | 679 | 130,393 | $22,342 | 1,510 | 289,971 | $59,001 |
| BEL | KEL | 1,923 | 451,962 | $60,919 | 589 | 138,497 | $22,975 | 1,475 | 346,620 | $68,283 |
| BEL | VAN | 1,284 | 351,752 | $46,421 | 414 | 113,453 | $18,428 | 986 | 270,039 | $52,085 |
| BEL | PDX | 10,855 | 3,082,858 | $405,005 | 3,640 | 1,033,812 | $167,157 | 8,676 | 2,463,862 | $473,079 |
| BEL | SLM | 1,444 | 486,510 | $62,662 | 225 | 75,663 | $11,994 | 1,111 | 374,518 | $70,501 |
| BEL | ALY | 869 | 317,004 | $40,494 | 129 | 46,930 | $7,378 | 651 | 237,484 | $44,338 |
| BEL | EUG | 1,800 | 734,343 | $92,819 | 269 | 109,706 | $17,067 | 1,404 | 572,800 | $105,816 |
| MVW | EVR | 777 | 30,322 | $7,399 | 416 | 16,228 | $4,874 | 620 | 24,189 | $8,627 |
| MVW | EDM | 1,456 | 78,639 | $13,307 | 821 | 44,349 | $9,236 | 1,248 | 67,415 | $16,673 |
| MVW | SEA | 34,776 | 2,503,842 | $399,818 | 19,115 | 1,376,283 | $270,483 | 29,812 | 2,146,486 | $500,949 |
| MVW | TUK | 11,986 | 1,042,794 | $175,657 | 5,201 | 452,478 | $93,808 | 10,275 | 893,963 | $220,088 |
| MVW | TAC | 14,711 | 1,647,591 | $257,877 | 7,092 | 794,250 | $153,002 | 11,616 | 1,300,945 | $297,600 |
| MVW | OLW | 3,647 | 525,117 | $77,345 | 1,254 | 180,628 | $32,745 | 2,867 | 412,904 | $88,887 |
| MVW | CTL | 3,359 | 557,596 | $79,743 | 1,213 | 201,279 | $35,428 | 2,609 | 433,071 | $90,520 |
| MVW | KEL | 1,397 | 291,871 | $40,059 | 449 | 93,873 | $15,857 | 1,065 | 222,553 | $44,643 |
| MVW | VAN | 1,925 | 477,312 | $63,841 | 638 | 158,230 | $26,047 | 1,567 | 388,680 | $75,979 |
| MVW | PDX | 6,344 | 1,636,860 | $217,740 | 2,212 | 570,798 | $93,452 | 5,086 | 1,312,212 | $255,118 |
| MVW | SLM | 913 | 283,956 | $36,901 | 143 | 44,350 | $7,093 | 704 | 218,948 | $41,585 |
| MVW | ALY | 546 | 185,140 | $23,831 | 82 | 27,695 | $4,387 | 410 | 138,953 | $26,140 |
| MVW | EUG | 1,130 | 431,785 | $54,911 | 171 | 65,303 | $10,221 | 883 | 337,156 | $62,666 |

| Station Pairs | | FY 23 Rev A-Scott Rd Build Estimate | | | FY 08- Fare Increase Estimate | | | FY 23 Rev A Fare Incr. Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| EVR | EDM | 550 | 8,245 | $2,467 | 331 | 4,970 | $1,830 | 471 | 7,068 | $3,091 |
| EVR | SEA | 12,340 | 407,234 | $94,186 | 7,240 | 238,918 | $68,009 | 10,579 | 349,113 | $118,009 |
| EVR | TUK | 4,228 | 202,932 | $42,996 | 2,202 | 105,684 | $27,559 | 3,624 | 173,969 | $53,872 |
| EVR | TAC | 8,051 | 587,710 | $105,023 | 4,148 | 302,817 | $66,600 | 6,222 | 454,175 | $118,619 |
| EVR | OLW | 10,423 | 1,094,419 | $174,325 | 3,625 | 380,597 | $74,614 | 7,647 | 802,984 | $186,937 |
| EVR | CTL | 3,417 | 433,985 | $65,798 | 1,307 | 165,930 | $30,963 | 2,613 | 331,799 | $73,523 |
| EVR | KEL | 4,040 | 686,816 | $97,770 | 1,349 | 229,279 | $40,170 | 3,007 | 511,181 | $106,353 |
| EVR | VAN | 7,486 | 1,564,664 | $214,748 | 2,652 | 554,350 | $93,642 | 5,699 | 1,191,162 | $238,941 |
| EVR | PDX | 20,775 | 4,549,802 | $619,833 | 7,670 | 1,679,819 | $281,657 | 16,401 | 3,591,835 | $715,169 |
| EVR | SLM | 3,249 | 883,671 | $116,729 | 488 | 132,727 | $21,579 | 2,462 | 669,558 | $129,267 |
| EVR | ALY | 1,949 | 584,571 | $76,286 | 284 | 85,210 | $13,686 | 1,435 | 430,391 | $82,089 |
| EVR | EUG | 3,959 | 1,358,097 | $174,593 | 592 | 203,053 | $32,128 | 3,042 | 1,043,248 | $196,017 |
| EDM | SEA | 6,130 | 110,337 | $38,937 | 3,885 | 69,922 | $30,369 | 5,548 | 99,869 | $51,509 |
| EDM | TUK | 1,914 | 63,146 | $16,160 | 1,098 | 36,226 | $11,410 | 1,732 | 57,156 | $21,378 |
| EDM | TAC | 4,718 | 273,660 | $53,411 | 2,272 | 131,799 | $31,660 | 4,051 | 234,937 | $67,016 |
| EDM | OLW | 1,718 | 154,622 | $25,770 | 491 | 44,205 | $9,068 | 1,441 | 129,686 | $31,590 |
| EDM | CTL | 1,402 | 156,968 | $24,568 | 370 | 41,409 | $7,977 | 1,149 | 128,680 | $29,437 |
| EDM | KEL | 2,314 | 358,685 | $52,009 | 545 | 84,551 | $15,089 | 1,897 | 294,045 | $62,315 |
| EDM | VAN | 15,723 | 3,050,239 | $423,889 | 2,624 | 508,973 | $87,054 | 13,720 | 2,661,592 | $540,592 |
| EDM | PDX | 45,145 | 9,209,502 | $1,269,015 | 11,786 | 2,404,383 | $407,766 | 39,393 | 8,036,070 | $1,618,395 |
| EDM | SLM | 9,577 | 2,461,391 | $327,595 | 661 | 169,766 | $27,809 | 8,020 | 2,061,115 | $400,930 |
| EDM | ALY | 5,732 | 1,633,560 | $214,512 | 394 | 112,391 | $18,165 | 4,800 | 1,367,908 | $262,533 |
| EDM | EUG | 11,562 | 3,792,210 | $489,866 | 810 | 265,629 | $42,231 | 9,681 | 3,175,514 | $599,527 |
| SEA | TUK | 250 | 3,750 | $1,662 | 156 | 2,334 | $1,274 | 226 | 3,394 | $2,199 |
| SEA | TAC | 23,337 | 933,489 | $224,172 | 13,161 | 526,452 | $155,600 | 20,035 | 801,399 | $281,275 |
| SEA | OLW | 64,155 | 4,619,156 | $805,742 | 29,890 | 2,152,110 | $462,035 | 53,809 | 3,874,215 | $987,705 |
| SEA | CTL | 34,031 | 3,198,873 | $565,183 | 14,898 | 1,400,458 | $304,536 | 27,898 | 2,622,392 | $677,174 |
| SEA | KEL | 64,751 | 8,870,932 | $1,333,798 | 28,615 | 3,920,189 | $725,445 | 53,082 | 7,272,268 | $1,598,089 |
| SEA | VAN | 153,652 | 27,042,827 | $3,946,167 | 72,736 | 12,801,602 | $2,299,134 | 134,075 | 23,597,157 | $5,032,610 |
| SEA | PDX | 864,187 | 160,738,779 | $23,897,540 | 405,319 | 75,389,309 | $13,794,912 | 754,076 | 140,258,195 | $30,476,916 |
| SEA | SLM | 36,780 | 8,790,458 | $1,150,175 | 13,026 | 3,113,153 | $501,337 | 30,799 | 7,360,937 | $1,407,653 |
| SEA | ALY | 23,716 | 6,332,069 | $820,521 | 8,163 | 2,179,410 | $347,584 | 19,859 | 5,302,336 | $1,004,203 |
| SEA | EUG | 52,929 | 16,407,876 | $2,034,577 | 17,759 | 5,505,272 | $840,190 | 44,321 | 13,739,597 | $2,490,039 |
| TUK | TAC | 204 | 5,106 | $1,974 | 116 | 2,893 | $1,376 | 175 | 4,383 | $2,477 |
| TUK | OLW | 685 | 39,054 | $9,338 | 319 | 18,211 | $5,359 | 575 | 32,756 | $11,447 |
| TUK | CTL | 1,041 | 82,271 | $17,641 | 455 | 35,957 | $9,490 | 854 | 67,444 | $21,137 |
| TUK | KEL | 1,780 | 217,174 | $40,446 | 775 | 94,599 | $21,684 | 1,459 | 178,037 | $48,461 |
| TUK | VAN | 5,633 | 906,966 | $138,935 | 2,621 | 421,943 | $79,552 | 4,916 | 791,404 | $177,186 |
| TUK | PDX | 21,759 | 3,720,741 | $584,508 | 10,064 | 1,721,006 | $332,751 | 18,986 | 3,246,662 | $745,432 |
| TUK | SLM | 548 | 122,646 | $16,180 | 124 | 27,665 | $4,492 | 458 | 102,701 | $19,803 |
| TUK | ALY | 545 | 137,400 | $17,726 | 117 | 29,457 | $4,677 | 457 | 115,056 | $21,694 |
| TUK | EUG | 685 | 202,015 | $28,059 | 133 | 39,157 | $6,694 | 573 | 169,163 | $34,341 |

| Station Pairs | | FY 23 Rev A-Scott Rd Build Estimate | | | FY 08- Fare Increase Estimate | | | FY 23 Rev A Fare Incr. Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue | Riders | Pas Mi | Revenue |
| TAC | OLW | 7,123 | 227,951 | $32,164 | 3,874 | 123,963 | $21,528 | 6,507 | 208,220 | $42,941 |
| TAC | CTL | 10,132 | 547,153 | $101,466 | 4,308 | 232,654 | $53,101 | 7,823 | 422,439 | $114,495 |
| TAC | KEL | 13,060 | 1,266,812 | $236,135 | 5,580 | 541,230 | $124,167 | 10,083 | 978,065 | $266,457 |
| TAC | VAN | 53,173 | 7,231,565 | $1,044,963 | 21,978 | 2,989,003 | $531,584 | 44,049 | 5,990,636 | $1,265,178 |
| TAC | PDX | 239,145 | 34,915,136 | $5,028,428 | 97,700 | 14,264,254 | $2,528,391 | 198,108 | 28,923,736 | $6,088,119 |
| TAC | SLM | 10,695 | 2,128,324 | $285,950 | 3,006 | 598,146 | $98,909 | 8,226 | 1,636,934 | $321,435 |
| TAC | ALY | 5,830 | 1,323,397 | $171,147 | 1,589 | 360,606 | $57,397 | 4,484 | 1,017,850 | $192,386 |
| TAC | EUG | 10,206 | 2,755,593 | $366,042 | 2,715 | 732,932 | $119,828 | 7,850 | 2,119,378 | $411,467 |
| OLW | CTL | 1,437 | 31,609 | $10,761 | 709 | 15,607 | $6,539 | 1,180 | 25,951 | $12,912 |
| OLW | KEL | 2,882 | 187,333 | $29,625 | 1,430 | 92,972 | $18,096 | 2,366 | 153,799 | $35,547 |
| OLW | VAN | 14,815 | 1,540,772 | $197,147 | 6,352 | 660,622 | $104,035 | 11,919 | 1,239,541 | $231,805 |
| OLW | PDX | 59,782 | 6,815,202 | $1,087,468 | 25,297 | 2,883,877 | $566,358 | 48,095 | 5,482,783 | $1,278,642 |
| OLW | SLM | 3,721 | 621,325 | $82,917 | 951 | 158,736 | $26,072 | 2,953 | 493,116 | $96,180 |
| OLW | ALY | 2,558 | 498,773 | $66,689 | 632 | 123,278 | $20,287 | 2,030 | 395,852 | $77,356 |
| OLW | EUG | 5,219 | 1,242,097 | $155,228 | 1,255 | 298,704 | $45,944 | 4,142 | 985,794 | $180,058 |
| CTL | KEL | 829 | 35,663 | $8,701 | 428 | 18,400 | $5,525 | 646 | 27,778 | $9,906 |
| CTL | VAN | 1,800 | 147,606 | $27,981 | 823 | 67,509 | $15,751 | 1,381 | 113,232 | $31,372 |
| CTL | PDX | 13,687 | 1,259,238 | $219,941 | 6,180 | 568,528 | $122,216 | 10,500 | 965,992 | $246,594 |
| CTL | SLM | 1,280 | 185,670 | $26,451 | 289 | 41,894 | $7,346 | 985 | 142,896 | $29,753 |
| CTL | ALY | 856 | 148,163 | $19,781 | 187 | 32,268 | $5,302 | 659 | 114,030 | $22,250 |
| CTL | EUG | 1,680 | 362,783 | $46,060 | 354 | 76,518 | $11,957 | 1,293 | 279,206 | $51,809 |
| KEL | VAN | 1,349 | 52,615 | $15,239 | 617 | 24,052 | $8,573 | 1,035 | 40,362 | $17,085 |
| KEL | PDX | 9,232 | 452,355 | $112,432 | 4,167 | 204,169 | $62,457 | 7,082 | 347,012 | $126,057 |
| KEL | SLM | 1,127 | 114,944 | $16,769 | 249 | 25,349 | $4,552 | 867 | 88,464 | $18,863 |
| KEL | ALY | 752 | 97,788 | $15,444 | 160 | 20,753 | $4,034 | 579 | 75,259 | $17,372 |
| KEL | EUG | 2,148 | 371,598 | $49,877 | 439 | 75,872 | $12,534 | 1,653 | 285,990 | $56,104 |
| VAN | PDX | 3,519 | 35,193 | $22,492 | 2,075 | 20,755 | $16,325 | 3,102 | 31,023 | $28,978 |
| VAN | SLM | 861 | 54,248 | $10,471 | 305 | 19,213 | $4,564 | 717 | 45,199 | $12,751 |
| VAN | ALY | 839 | 76,378 | $13,180 | 285 | 25,937 | $5,509 | 699 | 63,638 | $16,051 |
| VAN | EUG | 2,244 | 300,646 | $45,073 | 730 | 97,840 | $18,053 | 1,869 | 250,501 | $54,888 |
| PDX | SLM | 44,755 | 2,372,025 | $328,539 | 16,376 | 867,907 | $147,951 | 37,290 | 1,976,387 | $400,083 |
| PDX | ALY | 27,015 | 2,188,227 | $282,798 | 9,505 | 769,919 | $122,463 | 22,509 | 1,823,246 | $344,381 |
| PDX | EUG | 103,380 | 12,819,145 | $1,711,561 | 35,522 | 4,404,734 | $723,818 | 86,137 | 10,681,000 | $2,084,277 |
| SLM | ALY | 1,668 | 46,690 | $8,187 | 964 | 26,983 | $5,823 | 1,475 | 41,301 | $10,584 |
| SLM | EUG | 8,599 | 610,554 | $76,366 | 3,258 | 231,350 | $35,614 | 7,097 | 503,870 | $92,109 |
| ALY | EUG | 1,086 | 46,704 | $9,819 | 530 | 22,776 | $5,893 | 877 | 37,720 | $11,590 |
| Total | | 3,488,871 | 531,799,576 | $80,985,262 | 1,316,517 | 199,996,699 | $37,391,168 | 2,858,737 | 440,225,034 | $97,645,348 |

# Appendix E:  Revenue and Expense Detail

# Appendix E: Revenue and Expense Detail

### Revenue and Expense Detail 2008

| REVENUE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Transportation | $21,726,730 | $9,633,332 | $31,360,061 |
| Food & Beverage | $3,259,009 | $1,445,000 | $4,704,009 |
| Mail, Express and Other | $297,927 | $90,808 | $388,735 |
| **Total Revenues** | $25,283,666 | $11,169,139 | $36,452,805 |

| EXPENSE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Train and Engine Crews | $5,066,060 | $994,863 | $6,060,923 |
| Train Fuel and Power | $2,337,016 | $724,404 | $3,061,420 |
| On-Board Service - Labor | $1,319,720 | $515,975 | $1,835,695 |
| On-Board Service - Supplies | $1,748,701 | $1,149,346 | $2,898,047 |
| Rolling Stock Rental | $8,944 | $3,543 | $12,487 |
| Station Services | $1,660,026 | $353,001 | $2,013,027 |
| Transportation | $2,528,323 | $742,355 | $3,270,678 |
| Maintenance of Equipment | $9,655,623 | $3,421,565 | $13,077,188 |
| Maintenance-of-Way | $1,008,644 | $181,590 | $1,190,234 |
| Other Railroad | $62,349 | $9,772 | $72,121 |
| Railroad Performance Pmts. | $4,261,772 | $577,233 | $4,839,005 |
| Commissary | $726,015 | $655,561 | $1,381,576 |
| Crew Base | $50,777 | $278,904 | $329,681 |
| SBU Advertising | $629,046 | $221,025 | $850,071 |
| Commissions | $502,166 | $288,753 | $790,919 |
| Sales | $539,016 | $303,679 | $842,695 |
| Reservations | $686,082 | $256,364 | $942,447 |
| General Support | $1,394,181 | $466,856 | $1,861,037 |
| Product Line Support | $507,361 | $190,850 | $698,211 |
| Business Unit Support | $552,768 | $202,456 | $755,224 |
| Insurance | $3,026,332 | $993,951 | $4,020,283 |
| Depreciation | $0 | $0 | |
| Interest & Taxes | $0 | $0 | |
| General & Administration | $549,058 | $180,426 | $729,483 |
| **Total Expenses** | $38,819,981 | $12,712,471 | $51,532,452 |
| **Income (Deficit)** | ($13,536,315) | ($1,543,332) | ($15,079,646) |
| **Passengers** | 992,000 | 478,000 | 1,410,100 |

## Revenue and Expense Detail 2008 Increased Fare

| REVENUE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Transportation | $24,092,403 | $10,231,882 | $34,324,285 |
| Food & Beverage | $3,613,860 | $1,534,782 | $5,148,643 |
| Mail, Express and Other | $297,927 | $90,808 | $388,735 |
| **Total Revenues** | $28,004,190 | $11,857,473 | $39,861,663 |

| EXPENSE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Train and Engine Crews | $5,066,060 | $994,863 | $6,060,923 |
| Train Fuel and Power | $2,337,016 | $724,404 | $3,061,420 |
| On-Board Service - Labor | $1,319,720 | $515,975 | $1,835,695 |
| On-Board Service - Supplies | $1,560,786 | $991,371 | $2,552,157 |
| Rolling Stock Rental | $8,944 | $3,543 | $12,487 |
| Station Services | $1,660,026 | $353,001 | $2,013,027 |
| Transportation | $2,528,323 | $742,355 | $3,270,678 |
| Maintenance of Equipment | $9,655,623 | $3,421,565 | $13,077,188 |
| Maintenance-of-Way | $1,008,644 | $181,590 | $1,190,234 |
| Other Railroad | $62,349 | $9,772 | $72,121 |
| Railroad Performance Pmts. | $4,261,772 | $577,233 | $4,839,005 |
| Commissary | $647,997 | $565,456 | $1,213,453 |
| Crew Base | $50,777 | $278,904 | $329,681 |
| SBU Advertising | $629,046 | $221,025 | $850,071 |
| Commissions | $448,204 | $249,065 | $697,268 |
| Sales | $481,094 | $261,939 | $743,033 |
| Reservations | $686,082 | $256,364 | $942,447 |
| General Support | $1,394,181 | $466,856 | $1,861,037 |
| Product Line Support | $507,361 | $190,850 | $698,211 |
| Business Unit Support | $552,768 | $202,456 | $755,224 |
| Insurance | $3,026,332 | $993,951 | $4,020,283 |
| Depreciation | $0 | $0 | |
| Interest & Taxes | $0 | $0 | |
| General & Administration | $549,058 | $180,426 | $729,483 |
| **Total Expenses** | $38,442,163 | $12,382,962 | $50,825,126 |
| **Income (Deficit)** | ($10,437,973) | ($525,489) | ($10,963,463) |
| **Passengers** | 885,400 | 412,300 | 1,246,900 |

## Revenue and Expense Detail 2023

| REVENUE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Transportation | $47,572,195 | $22,079,659 | $69,651,854 |
| Food & Beverage | $7,135,829 | $3,311,949 | $10,447,778 |
| Mail, Express and Other | $553,293 | $138,374 | $691,667 |
| **Total Revenues** | $55,139,041 | $27,118,696 | $82,257,737 |

| EXPENSE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Train and Engine Crews | $7,409,113 | $1,883,607 | $9,292,720 |
| Train Fuel and Power | $3,322,945 | $845,137 | $4,168,083 |
| On-Board Service - Labor | $1,930,091 | $976,912 | $2,907,002 |
| On-Board Service - Supplies | $3,613,041 | $2,594,204 | $6,207,245 |
| Rolling Stock Rental | $14,534 | $4,724 | $19,258 |
| Station Services | $2,397,816 | $692,158 | $3,089,974 |
| Transportation | $2,739,017 | $1,187,768 | $3,926,785 |
| Maintenance of Equipment | $13,189,021 | $3,834,798 | $17,023,818 |
| Maintenance-of-Way | $2,212,713 | $326,862 | $2,539,575 |
| Other Railroad | $1,237,119 | $374,657 | $1,611,776 |
| Railroad Performance Pmts. | $8,310,455 | $923,573 | $9,234,028 |
| Commissary | $1,500,040 | $1,479,676 | $2,979,716 |
| Crew Base | $76,165 | $715,138 | $791,303 |
| SBU Advertising | $1,022,200 | $294,700 | $1,316,900 |
| Commissions | $1,037,540 | $651,749 | $1,689,289 |
| Sales | $1,113,677 | $685,437 | $1,799,114 |
| Reservations | $1,486,512 | $683,638 | $2,170,150 |
| General Support | $2,013,816 | $915,404 | $2,929,220 |
| Product Line Support | $732,855 | $374,216 | $1,107,071 |
| Business Unit Support | $798,443 | $396,972 | $1,195,415 |
| Insurance | $4,917,790 | $1,325,268 | $6,243,058 |
| Depreciation | | | |
| Interest & Taxes | | | |
| General & Administration | $793,083 | $353,776 | $1,146,859 |
| **Total Expenses** | $61,867,986 | $21,520,374 | $83,388,360 |
| **Income (Deficit)** | ($6,728,945) | $5,598,322 | ($1,130,623) |
| **Passengers** | 2,049,600 | 1,078,900 | 2,995,300 |

## Revenue and Expense Detail 2023 Revision A

| REVENUE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Transportation | $48,088,459 | $26,127,403 | $74,215,862 |
| Food & Beverage | $7,213,269 | $3,919,110 | $11,132,379 |
| Mail, Express and Other | $595,854 | $172,968 | $768,822 |
| **Total Revenues** | $55,897,581 | $30,219,482 | $86,117,063 |

| EXPENSE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Train and Engine Crews | $7,979,045 | $2,188,699 | $10,167,743 |
| Train Fuel and Power | $3,578,556 | $1,056,422 | $4,634,978 |
| On-Board Service - Labor | $2,078,559 | $1,135,144 | $3,213,703 |
| On-Board Service - Supplies | $3,666,983 | $3,060,194 | $6,727,177 |
| Rolling Stock Rental | $15,652 | $5,905 | $21,557 |
| Station Services | $2,259,480 | $692,158 | $2,951,638 |
| Transportation | $2,458,092 | $1,237,259 | $3,695,351 |
| Maintenance of Equipment | $11,754,671 | $3,967,032 | $15,721,703 |
| Maintenance-of-Way | $2,382,921 | $408,578 | $2,791,499 |
| Other Railroad | $1,190,127 | $416,453 | $1,606,580 |
| Railroad Performance Pmts. | $8,949,721 | $1,154,466 | $10,104,187 |
| Commissary | $1,522,435 | $1,745,467 | $3,267,902 |
| Crew Base | $75,189 | $715,138 | $790,327 |
| SBU Advertising | $1,100,831 | $368,375 | $1,469,206 |
| Commissions | $1,053,031 | $768,821 | $1,821,851 |
| Sales | $1,130,304 | $808,560 | $1,938,865 |
| Reservations | $1,467,454 | $674,643 | $2,142,097 |
| General Support | $1,897,635 | $915,404 | $2,813,039 |
| Product Line Support | $690,575 | $374,216 | $1,064,791 |
| Business Unit Support | $752,379 | $396,972 | $1,149,351 |
| Insurance | $5,296,081 | $1,656,585 | $6,952,666 |
| Depreciation | | | |
| Interest & Taxes | | | |
| General & Administration | $747,328 | $353,776 | $1,101,104 |
| **Total Expenses** | $62,047,049 | $24,100,265 | $86,147,314 |
| **Income (Deficit)** | ($6,149,468) | $6,119,217 | ($30,251) |
| **Passengers** | 2,080,200 | 1,272,700 | 3,203,900 |

## Revenue and Expense Detail 2023 Revision A Scott Road

| REVENUE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Transportation | $48,111,935 | $28,025,466 | $76,137,401 |
| Food & Beverage | $7,216,790 | $4,203,820 | $11,420,610 |
| Mail, Express and Other | $595,854 | $172,968 | $768,822 |
| **Total Revenues** | $55,924,579 | $32,402,254 | $88,326,833 |

| EXPENSE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Train and Engine Crews | $7,979,045 | $2,188,699 | $10,167,743 |
| Train Fuel and Power | $3,578,556 | $1,056,422 | $4,634,978 |
| On-Board Service - Labor | $2,078,559 | $1,135,144 | $3,213,703 |
| On-Board Service - Supplies | $3,668,922 | $3,279,243 | $6,948,165 |
| Rolling Stock Rental | $15,652 | $5,905 | $21,557 |
| Station Services | $2,259,480 | $692,158 | $2,951,638 |
| Transportation | $2,458,092 | $1,237,259 | $3,695,351 |
| Maintenance of Equipment | $11,754,671 | $3,967,032 | $15,721,703 |
| Maintenance-of-Way | $2,382,921 | $408,578 | $2,791,499 |
| Other Railroad | $1,190,127 | $416,453 | $1,606,580 |
| Railroad Performance Pmts. | $8,949,721 | $1,154,466 | $10,104,187 |
| Commissary | $1,523,241 | $1,870,407 | $3,393,648 |
| Crew Base | $75,189 | $715,138 | $790,327 |
| SBU Advertising | $1,100,831 | $368,375 | $1,469,206 |
| Commissions | $1,053,587 | $823,853 | $1,877,440 |
| Sales | $1,130,902 | $866,437 | $1,997,339 |
| Reservations | $1,467,454 | $674,643 | $2,142,097 |
| General Support | $1,897,635 | $915,404 | $2,813,039 |
| Product Line Support | $690,575 | $374,216 | $1,064,791 |
| Business Unit Support | $752,379 | $396,972 | $1,149,351 |
| Insurance | $5,296,081 | $1,656,585 | $6,952,666 |
| Depreciation | | | |
| Interest & Taxes | | | |
| General & Administration | $747,328 | $353,776 | $1,101,104 |
| **Total Expenses** | $62,050,948 | $24,557,163 | $86,608,111 |
| **Income (Deficit)** | ($6,126,369) | $7,845,091 | $1,718,722 |
| **Passengers** | 2,081,300 | 1,363,800 | 3,295,000 |

## Revenue and Expense Detail 2023 Revision A Increased Fare

| REVENUE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Transportation | $59,889,461 | $31,904,657 | $91,794,118 |
| Food & Beverage | $8,983,419 | $4,785,699 | $13,769,118 |
| Mail, Express and Other | $595,854 | $172,968 | $768,822 |
| **Total Revenues** | $69,468,734 | $36,863,324 | $106,332,057 |

| EXPENSE | PORTLAND | VANCOUVER | TOTAL |
|---|---|---|---|
| Train and Engine Crews | $7,979,045 | $2,188,699 | $10,167,743 |
| Train Fuel and Power | $3,578,556 | $1,056,422 | $4,634,978 |
| On-Board Service - Labor | $2,078,559 | $1,135,144 | $3,213,703 |
| On-Board Service - Supplies | $3,102,181 | $2,530,244 | $5,632,426 |
| Rolling Stock Rental | $15,652 | $5,905 | $21,557 |
| Station Services | $2,259,480 | $692,158 | $2,951,638 |
| Transportation | $2,458,092 | $1,237,259 | $3,695,351 |
| Maintenance of Equipment | $11,754,671 | $3,967,032 | $15,721,703 |
| Maintenance-of-Way | $2,382,921 | $408,578 | $2,791,499 |
| Other Railroad | $1,190,127 | $416,453 | $1,606,580 |
| Railroad Performance Pmts. | $8,949,721 | $1,154,466 | $10,104,187 |
| Commissary | $1,287,944 | $1,443,195 | $2,731,140 |
| Crew Base | $75,189 | $715,138 | $790,327 |
| SBU Advertising | $1,100,831 | $368,375 | $1,469,206 |
| Commissions | $890,839 | $635,680 | $1,526,519 |
| Sales | $956,211 | $668,538 | $1,624,748 |
| Reservations | $1,467,454 | $674,643 | $2,142,097 |
| General Support | $1,897,635 | $915,404 | $2,813,039 |
| Product Line Support | $690,575 | $374,216 | $1,064,791 |
| Business Unit Support | $752,379 | $396,972 | $1,149,351 |
| Insurance | $5,296,081 | $1,656,585 | $6,952,666 |
| Depreciation | | | |
| Interest & Taxes | | | |
| General & Administration | $747,328 | $353,776 | $1,101,104 |
| **Total Expenses** | $60,911,471 | $22,994,880 | $83,906,352 |
| **Income (Deficit)** | $8,557,263 | $13,868,443 | $22,425,706 |
| **Passengers** | 1,759,800 | 1,052,300 | 2,696,900 |