# 2007 KMPO Base Calibration Travel Demand Model Update

## Final Report

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# Introduction

In 2005, Kootenai County developed the 2005 KMPO (Kootenai Metropolitan Organization) Travel Demand Forecasting VISUM Model. The KMPO Model provides the existing 2005 AM and PM peak hour traffic forecasts and is used as a base model to project future AM and PM peak hour traffic in the Kootenai County-wide area.

No matter how well validated an existing travel demand forecasting model is, public agencies (or model owners) update the existing base year model every year or every other year or every five years depending on the land use growth and transportation improvements in the modeling area. This is because the traffic on streets changes due to the changes in land use and transportation system.

The 2007 KMPO model update is expected to revalidate the 2005 existing base year model to reflect the most current 2007 traffic conditions. In addition, during the previous 2005 KMPO model application some enhancements were found necessary to improve the 2007 KMPO model accuracies and forecasting capabilities.

Basic technical information about the 2005 KMPO VISUM model is provided in the "Kootenai County (KMPO) – 2005 Transportation Model Documentation." This report is focused on the 2007 KMPO travel demand model update, including enhancements.

Working with KMPO technical staff, HDR was consulted to provide the on-call modeling services on the 2007 KMPO model update, including enhancements, which are addressed in the following nine sections in this report:

1. KMPO Model Graphic User Interface (GUI)
2. AM/PM Peak Hour Trip Generation Update
3. 2007 KMPO Land Use Update
4. 2007 KMPO Auto Network Enhancements
5. AM/PM Peak Hour Trip Generation
6. AM/PM Peak Hour Trip Distribution
7. AM/PM Peak Hour Traffic Assignments
8. AM/PM Peak Hour Traffic Screenline Validation
9. Model Limitations and Improvements

More detailed technical specifications and model update descriptions are provided to assist the KMPO model users in their understanding of the model applications, data input and output, and validation results.

Attached appendices illustrate even more technical information related to the VISUM model script and parameter files, and the 2007 AM/PM peak hour detailed screenline validation spreadsheets.

# 1.0 KMPO Model Graphic User Interface (GUI)

## 1.1 KMPO GUI

As shown in Figure 1, the KMPO Model GUI is designed to prepare input and output files for the AM and PM peak hour traffic forecasts in the Kootenai County area. As illustrated in Appendix 1A: KMPOGUI.Py is a Python script file to open the interface by clicking the file.
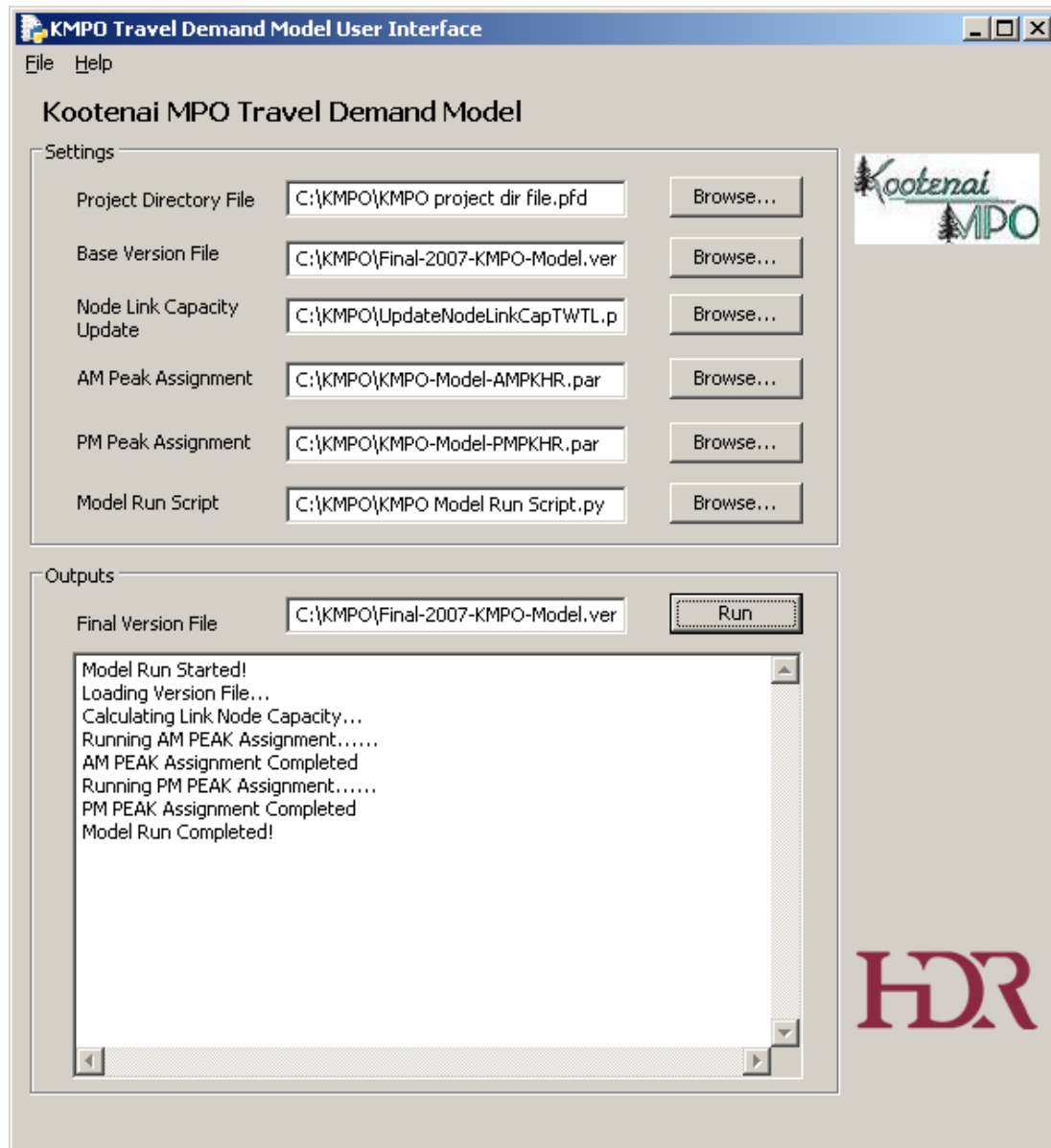


**Figure 1: KMPO Model GUI**

## 1.2    KMPO GUI Input File Setting

Project directory – KMPO Project dir file.pfd (shown in Appendix 1B) is a VISUM project directory file, which specifies where the model runs.

Base Version – Base-2007-KMPO-Model.ver is a 2007 Base KMPO VISUM Model version file in the project directory.

Node Link Capacity Update – UpdateNodeLinkCapTWTL.par (shown in Appendix 1C) is a link and node capacity update parameter file.

AM Peak Assignment – KMPO-Model-AMPKHR.par (shown in Appendix 1D) is an AM peak hour model run parameter file that feeds the trip generation, trip distribution, and trip assignment model run.

PM Peak Assignment – KMPO-Model-PMPKHR.par (shown in Appendix 1E) is a PM peak hour model run parameter file that feeds the trip generation, trip distribution, and trip assignment model run.

Model Run Script – KMPO Model Run Script.py (shown in Appendix 1F) is a complete GUI Python file to report the model run comments and errors.

## 1.3    KMPO GUI Output File

Final Version – Final-2007-KMPO-Model.ver is a final 2007 Base KMPO VISUM Model version file saved in the project directory after the complete AM/PM Peak Hour Model runs.

## 1.4    KMPO GUI Model Run Comments

If the model is performing smoothly and correctly, the GUI comment area should display the comments as shown in Figure 1:

> Model Run Started!
>
> Loading Version File ….
>
> Calculating Link Node Capacity …
>
> Running AM Peak Assignment …....
>
> AM Peak Assignment Completed
>
> Running PM Peak Assignment …....
>
> PM Peak Assignment Completed
>
> Model Run Completed!

Otherwise, there will be error or warning messages that will suggest where the running problems are for modelers to track.

Even if the model run is completed successfully without any error or warning message, it is only an indication that the trip generation, trip distribution and assignments for AM peak hour and PM peak hour are run.  Modelers will still need to verify if the model results are reasonable by comparing the new model version with the old model version to evaluate changes in the results.

# 2.0 AM/PM Peak Hour Trip Generation Update

After reviewing the 2005 KMPO AM and PM peak hour trip generation rates in Table 9 and Table 10 of the "Kootenai County (KMPO) 2005 Transportation Model Documentation," respectively, HDR found three errors with respect to Hotel, Recreational, and Outer Single Family Dwelling Unit land use categories.

## 2.1 Hotel Land Use

In the 2005 KMPO model, the Hotel land use is based on Rooms but the trip rates are based on Employees; therefore, both AM and PM peak hour trip generation rates are updated to reflect the trip rates per room in the 2007 KMPO model.

## 2.2 Recreational Land Use

In the 2005 KMPO model, the Recreational trip generation rates should be based on occupied recreational spaces instead of recreational spaces; therefore, both AM and PM peak hour trip generation rates are updated to reflect the trip rates per occupied recreational space in the 2007 KMPO model.

## 2.3 Outer Single Family Dwelling Unit Land Use

In the 2005 KMPO model, the Outer Single Family Dwelling Unit (SFDU) generation rates should be based on the occupied Outer SFDU instead of total SFDU; therefore, both AM and PM peak hour trip generation rates are updated to reflect the trip rates per occupied Outer SFDU in the 2007 KMPO model.

## 2.4 2007 AM Peak Hour Trip Generation Rate Update

Table 1 shows the updated AM peak hour trip generation rates, which are applied in the 2007 KMPO AM Peak Hour Model Run.

## 2.5 2007 PM Peak Hour Trip Generation Rate Update

Table 2 shows the updated PM peak hour trip generation rates, which are applied in the 2007 KMPO PM Peak Hour Model Run.

**Table 1: Updated AM Peak Hour Trip Rates in 2007 KMPO AM Model**

| | | Home to Work | | Work to Home | | Home to Retail | | Retail to Home | | Home to Other | | Other to Home | | Non Home Based | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Land Uses** | **Units** | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Total |
| 7 Hotel | Room | 0.000 | 0.071 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.061 | 0.054 | 0.000 | 0.287 | 0.071 | 0.358 | 0.202 | 0.560 |
| 8 Recreation | Spaces | 0.000 | 0.071 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.081 | 0.047 | 0.000 | 0.019 | 0.051 | 0.068 | 0.203 | 0.270 |
| 9 Outer SFDU | DU | 0.029 | 0.000 | 0.000 | 0.003 | 0.006 | 0.000 | 0.000 | 0.002 | 0.043 | 0.00 | 0.000 | 0.019 | 0.006 | 0.003 | 0.084 | 0.026 | 0.110 |

**Table 2: Updated PM Peak Hour Trip Rates in 2007 KMPO PM Model**

| | | Home to Work | | Work to Home | | Home to Retail | | Retail to Home | | Home to Other | | Other to Home | | Non Home Based | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Land Uses** | **Units** | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Orig | Dest | Total |
| 7 Hotel | Room | 0.000 | 0.003 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.049 | 0.042 | 0.000 | 0.182 | 0.277 | 0.281 | 0.329 | 0.610 |
| 8 Recreation | Spaces | 0.000 | 0.002 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.131 | 0.142 | 0.000 | 0.020 | 0.054 | 0.203 | 0.187 | 0.390 |
| 9 Outer SFDU | DU | 0.004 | 0.000 | 0.000 | 0.065 | 0.035 | 0.000 | 0.000 | 0.057 | 0.084 | 0.000 | 0.000 | 0.155 | 0.012 | 0.038 | 0.135 | 0.315 | 0.450 |

# 3.0 2007 KMPO Land Use Update

Land use data are important inputs to travel demand forecasting models because land uses generate travel activities and demands. To make accurate travel demand forecasts, modelers should strive to verify the accuracies of land use data in the traffic analysis zones (TAZ). KMPO staff took several rounds of land use reviews and verifications with local jurisdictions to ensure there are not errors in the land use data by TAZ.

## 3.1 Land Use Assumptions

In the 2005 KMPO model, sixteen land use categories were made based on NAICS codes. In the 2007 KMPO land use update, all of these land use categories are kept except for Land Use Category 12: Waterfront Units, which are actually included in LU Category 1: Single Family Units, for a total of fifteen land use categories.

## 3.2 2007 Land Use Summary

After KMPO staff updated the 2007 land use by TAZ, a control total check was made to ensure that the primary residential dwelling units match the local census data. Table 3 shows the total 2007 land use data.

As shown in Table 3, the 2007 household number should be less than the sum of SFDU + MFDU + OUTER SFDU, which is 41,259 + 9,651 + 13,159 = 64,069 because of the vacancy factor. Assuming a 5% -10% vacancy rate in the KMPO area, the residential total households should account for a range of 57,660 and 60,860. Since the 2005 Spokane/Kootenai County Regional Travel Survey reports 52,345 households in the KMPO area in 2003 (Table 4 of Page iii), a growth rate range of 10%-16% is assumed to occur between 2003 and 2007. This four-year residential growth rate range is a reasonable assumption.

**Table 3: 2007 KMPO Land Use Data Summary**

| Land Use Type | Total Units in KMPO Area | Units of Measurement |
|---|---|---|
| LU1: SFDU (Single Family Dwelling Units) | 41,259 | Dwelling Units |
| LU2: MFDU (Multi-Family Dwelling Units) | 9,651 | Dwelling Units |
| LU3: Retail | 13,221 | Employees |
| LU4: Commercial (FIRES) | 11,197 | Employees |
| LU5: Industrial | 6,287 | Employees |
| LU6: Schools | 23,010 | Students |
| LU7: Hotel | 2,602 | Rooms |
| LU8: Recreation | 18,870 | Spaces |
| LU9: Reserved for Outer Zone SFDU | 13,159 | Dwelling Units |
| LU10: Post Secondary Schools | 10,508 | Students |
| LU11: Agriculture | 350,692 | Acres |
| LU12: Waterfront Units | Not Used | Dwelling Units |
| LU13: Publicly owned lands | 304,993 | Acres |
| LU14: Utilities plus transportation | 8,879 | Employees |
| LU15: Medical | 7,991 | Employees |
| LU16: Government | 3,062 | Employees |

Note: FIRES stands for Finance, Insurance, Real Estate and Services

# 4.0 2007 KMPO Auto Network Enhancements

Between 2005 and 2007, several roadway improvement projects were made in the KMPO area. The 2007 roadway network should include these improvements to reflect what's on the ground in 2007. KMPO staff coded seven roundabouts in the 2007 KMPO model.

Another major network update is the centroid connector revisions. Centroid connectors are coded in travel demand models to emulate local driveways for vehicle trips to access and egress TAZ centroid. In the 2005 KMPO model, quite a few centroid connectors were directly connected to intersections, making 5-leg or 6-leg intersections in the model. Such an erroneous coding was corrected in the 2007 KMPO VISUM Model network.

## 4.1 Network Link/Node Delay Function Calibration

After the 2007 auto network was enhanced, it was found that higher vehicle traffic was assigned to the state and interstate freeway facilities. There are two sources of over-assigning traffic on freeway facilities: (1) the arterial and local street intersections experience higher than expected delays and thus result in freeways being more attractive to motorists; and (2) the freeway facilities are assumed higher speed or higher capacities.

Calibration was made to adjust freeway link delay functions by reducing the capacity by 25% (as shown in Figure 2, c=0.75) to simulate freeway delays more reasonably.
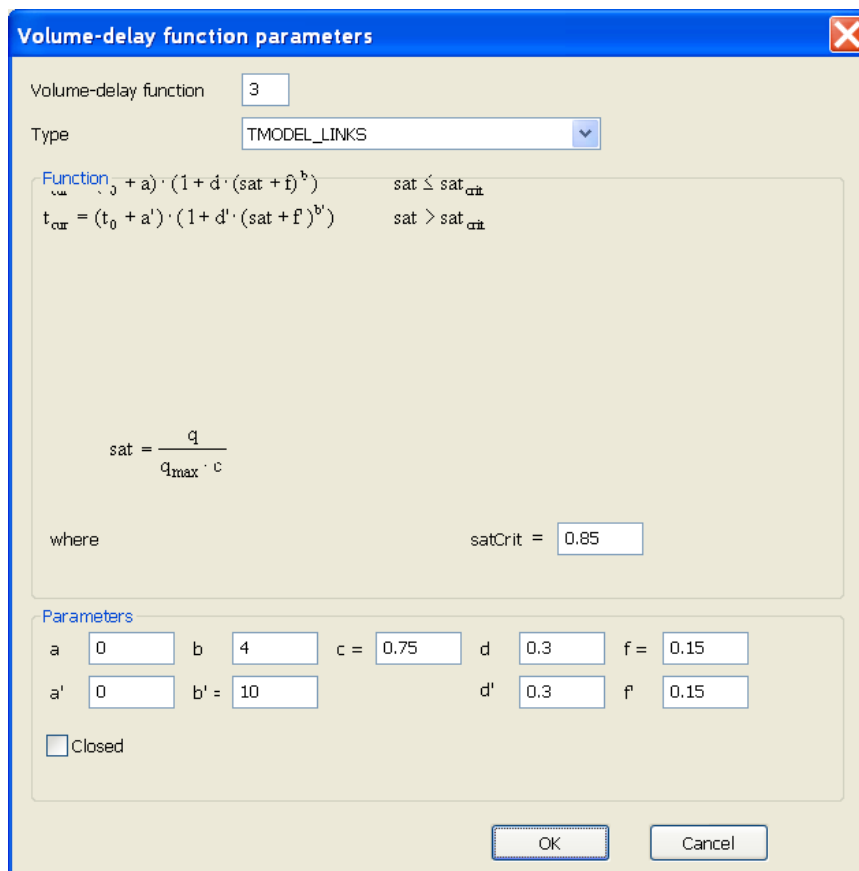


**Figure 2: KMPO Model Link Volume-Delay Functions**

Intersection node delay functions were also revised to be a constant as shown in Figure 3 below, to further calibrate the arterial and local street traffic turning volumes. At several freeway interchanges, 15-45 seconds of delay were assumed for some turns to reduce over-assignment of traffic entering or exiting freeway.
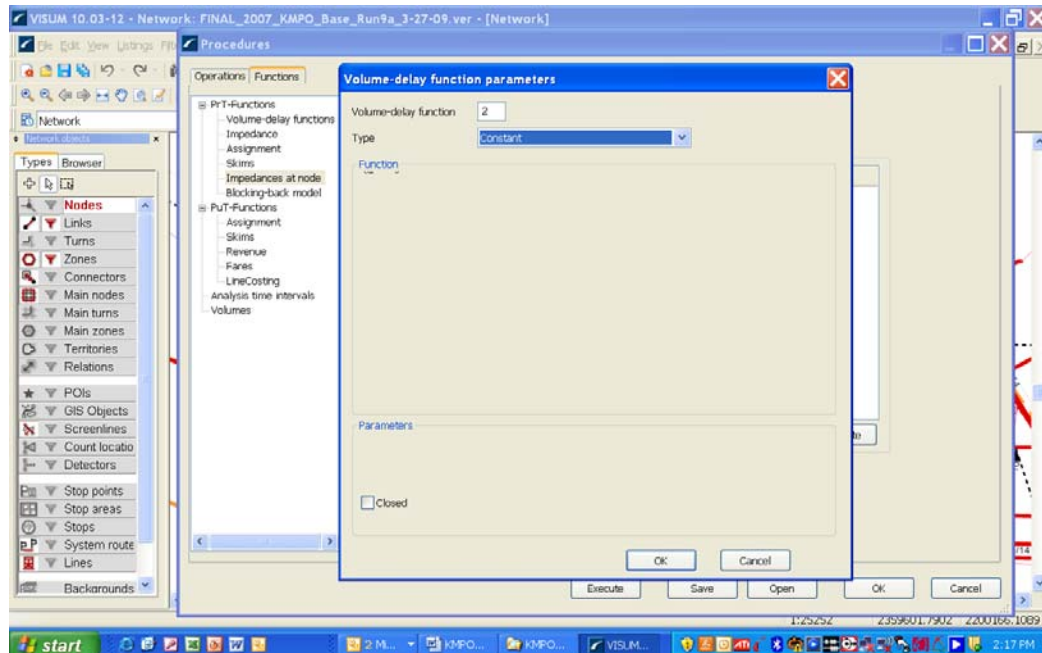


**Figure 3: 2007 KMPO Model Node Volume-Delay Functions (Assumed a Constant)**

## 4.2    2007 External Trip Update

In the 2007 KMPO model, the trips coming from and to external areas are not based on the land use data for trip generation but instead are based on the existing 2007 directional traffic counts at the external stations. Fifteen external stations (TAZ 576 – TAZ 591) were coded in the 2007 KMPO model to conceptually represent external TAZs.

Table 4 lists all of AM and PM peak hour directional traffic count data at each of the external TAZs. Note X-I stands for "from External to Internal" and vice versa.

Table 5 and Table 6 respectively list the 2007 AM and PM peak hour external-external through trips, which were also extracted from the external traffic counts and balanced as input to the 2007 KMPO model.

## 4.3    2007 Link Traffic Count Update

The 2007 AM and PM peak hour traffic counts were coded by KMPO staff in the KMPO model for the purpose of model validation. Regression analyses can be directly performed by using the model volumes to compare with the peak hour traffic counts.

Counts for other time periods were also coded by KMPO staff, such as: AM Peak Period (6 AM – 9 AM), Mid-day Period (9 AM – 3 PM), PM Peak Period (3 PM – 6 PM), Night Period (6 PM – 6 AM), and 24-Hour Daily Period (6 AM – 6 AM), which will be used to verify the daily volume forecasts.

**Table 4: 2007 AM/PM Peak Hour Counts at External TAZs**

| TAZ No | 2007 KMPO Model Count Locations | XI-Counts-AM | IX-Counts-AM | XI-Counts-PM | IX-Counts-PM |
|---|---|---|---|---|---|
| 576 | State Hwy. 41 - N. County Line | 236 | 133 | 154 | 268 |
| 577 | US 95 - N. County Line | 298 | 275 | 342 | 409 |
| 578 | Bayview Road - N. County Line | 17 | 6 | 17 | 19 |
| 580 | E. Canyon Rad - E. County Line | 5 | 16 | 15 | 8 |
| 581 | I-90 - E. County Line | 279 | 400 | 486 | 521 |
| 582 | Future | 0 | 0 | 0 | 0 |
| 583 | State Hwy. 3 - S. County Line | 75 | 131 | 125 | 108 |
| 584 | Heyburn Rd. - S. County Line | 15 | 8 | 15 | 22 |
| 585 | US 95 - S. County Line | 175 | 202 | 248 | 251 |
| 586 | W. Worley West Rd. - W. County Line | 2 | 1 | 3 | 3 |
| 587 | State Hwy. 58 (E. Hoxie Rd.) - W. County Line | 79 | 57 | 89 | 135 |
| 588 | W. Riverview Drive - W. County Line | 77 | 94 | 110 | 90 |
| 589 | I-90 - W. County Line | 1413 | 2147 | 2440 | 1910 |
| 590 | Seltice Way - W. County Line | 136 | 191 | 300 | 257 |
| 591 | State Hwy. 53 (Trent Ave.) - W. County Line | 171 | 459 | 380 | 289 |
| | Total Counts | 2978 | 4120 | 4724 | 4290 |

## Table 5:  2007 AM Peak Hour External-External Through Traffic Volumes

| Zones | Name | 395.5 / 396.1 | 576 State H | 577 US 95 - | 578 Bayview | 580 E. Cany | 581 I-90 - E. | 582 Future | 583 State H | 584 Heyburn | 585 US 95 - | 586 W. Wor | 587 State H | 588 W. Rive | 589 I-90 - W | 590 Seltice | 591 State H |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Desirable | 12.8 | 26.4 | 0.6 | 1.5 | 38.4 | 0.0 | 12.6 | 0.8 | 19.4 | 0.1 | 5.5 | 9.0 | 206.1 | 18.3 | 44.1 |
| 576 | State Hwy. 41 - N. County Line | 31.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 31.0 | 0.1 | 0.2 |
| 577 | US 95 - N. County Line | 39.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 39.3 | 0.1 | 0.3 |
| 578 | Bayview Road - N. County Line | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 |
| 580 | E. Canyon Rad - E. County Line | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 |
| 581 | I-90 - E. County Line | 37.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 36.8 | 0.1 | 0.3 |
| 582 | Future | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 583 | State Hwy. 3 - S. County Line | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.9 | 0.0 | 0.1 |
| 584 | Heyburn Rd. - S. County Line | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| 585 | US 95 - S. County Line | 23.3 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.0 | 0.1 | 0.2 |
| 586 | W. Worley West Rd. - W. County Line | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| 587 | State Hwy. 58 (E. Hoxie Rd.) - W. County Line | 10.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.4 | 0.0 | 0.1 |
| 588 | W. Riverview Drive - W. County Line | 10.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.1 | 0.0 | 0.1 |
| 589 | I-90 - W. County Line | 187.9 | 12.4 | 25.7 | 0.6 | 1.5 | 37.3 | 0.0 | 12.2 | 0.7 | 18.8 | 0.1 | 5.3 | 8.7 | 0.0 | 17.8 | 42.7 |
| 590 | Seltice Way - W. County Line | 18.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 17.9 | 0.0 | 0.1 |
| 591 | State Hwy. 53 (Trent Ave.) - W. County Line | 22.7 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 22.6 | 0.1 | 0.0 |

## Table 6:  2007 PM Peak Hour External-External Through Traffic Volumes

| Zones | Name | 750.8 / 751.1 | 576 State H | 577 US 95 - | 578 Bayview | 580 E. Cany | 581 I-90 - E. | 582 Future | 583 State H | 584 Heyburn | 585 US 95 - | 586 W. Wor | 587 State H | 588 W. Rive | 589 I-90 - W | 590 Seltice | 591 State H |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Desirable | 46.9 | 71.6 | 3.3 | 1.4 | 91.2 | 0.0 | 18.9 | 3.9 | 43.9 | 0.5 | 23.6 | 15.8 | 334.3 | 45.0 | 50.6 |
| 576 | State Hwy. 41 - N. County Line | 24.5 | 0.0 | 0.4 | 0.0 | 0.0 | 0.5 | 0.0 | 0.1 | 0.0 | 0.2 | 0.0 | 0.1 | 0.1 | 22.5 | 0.3 | 0.3 |
| 577 | US 95 - N. County Line | 54.4 | 0.6 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.2 | 0.0 | 0.5 | 0.0 | 0.3 | 0.2 | 50.2 | 0.6 | 0.6 |
| 578 | Bayview Road - N. County Line | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 0.0 | 0.0 |
| 580 | E. Canyon Rad - E. County Line | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 |
| 581 | I-90 - E. County Line | 77.3 | 0.8 | 1.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 0.8 | 0.0 | 0.4 | 0.3 | 71.7 | 0.8 | 0.9 |
| 582 | Future | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 583 | State Hwy. 3 - S. County Line | 19.9 | 0.2 | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.1 | 18.1 | 0.2 | 0.2 |
| 584 | Heyburn Rd. - S. County Line | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 |
| 585 | US 95 - S. County Line | 39.4 | 0.4 | 0.6 | 0.0 | 0.0 | 0.8 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 36.2 | 0.4 | 0.5 |
| 586 | W. Worley West Rd. - W. County Line | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| 587 | State Hwy. 58 (E. Hoxie Rd.) - W. County Line | 14.2 | 0.1 | 0.2 | 0.0 | 0.0 | 0.3 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 12.9 | 0.1 | 0.2 |
| 588 | W. Riverview Drive - W. County Line | 17.5 | 0.2 | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.1 | 0.0 | 0.2 | 0.0 | 0.1 | 0.0 | 16.0 | 0.2 | 0.2 |
| 589 | I-90 - W. County Line | 388.0 | 43.3 | 66.5 | 3.1 | 1.3 | 85.2 | 0.0 | 17.4 | 3.5 | 40.7 | 0.5 | 21.8 | 14.5 | 0.0 | 41.7 | 47.1 |
| 590 | Seltice Way - W. County Line | 47.7 | 0.5 | 0.8 | 0.0 | 0.0 | 1.0 | 0.0 | 0.2 | 0.0 | 0.5 | 0.0 | 0.3 | 0.2 | 43.8 | 0.0 | 0.6 |
| 591 | State Hwy. 53 (Trent Ave.) - W. County Line | 60.4 | 0.6 | 1.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.3 | 0.1 | 0.6 | 0.0 | 0.3 | 0.2 | 55.6 | 0.6 | 0.0 |

# 5.0 AM/PM Peak Hour Trip Generation

The KMPO VISUM model trip generation is categorized by four primary trip purposes. After the AM and PM peak hour trip generation model is run, the total KMPO region-wide trip productions and attractions are summarized to compare with the expanded travel survey samples reported in the "Spokane and Kootenai County Regional Travel Survey Final Report."

## 5.1 AM Peak Hour Trip Generation Validation

Table 7 lists the 2007 AM peak hour trip generation model results compared with the AM 3 hours (6 AM – 9 AM) expanded sample trips and AM peak hour (7 AM – 8 AM) expanded sample trips.

The AM peak hour model results show reasonable comparison with the survey results as the modeled vehicle trips include external inbound, outbound, and through trips. The 2007 AM peak hour modeled externally related trips are totaled 2,978 (Table 4) – 396 (Table 5) = 2,582 while the difference between model trips and surveyed trips is about 2,582. Since the surveyed trips only include the KMPO households, the modeled trips are about 11% higher than the expanded survey trips.

**Table 7: 2007 AM Peak Hour Trip Generation Validation Results**

| TRIP PURPOSE | AM-Period Expanded Survey Trips | AM Peak Hour Surveyed Vehicle Trips | AM Peak Hour Model Vehicle Trips | AM Peak Hour Model/Survey % Difference |
|---|---|---|---|---|
| Home Based Work | 19,123 | 8,946 | 9,411 | 5.2% |
| Home Based Retail | 4,696 | 1,307 | 1,488 | 13.9% |
| Home Based Other | 38,041 | 8,698 | 10,247 | 17.8% |
| Non-Home Based | 17,694 | 5,285 | 5,672 | 7.3% |
| Total | 79,554 | 24,236 | 26,818 | 10.6% |

## 5.2 PM Peak Hour Trip Generation Validation

Table 8 lists the 2007 PM peak hour trip generation model results compared with the PM 3 hours (3 PM – 6 PM) expanded sample trips and PM peak hour (5 PM – 6 PM) expanded sample trips.

The PM peak hour model results show reasonable comparison with the survey results as the modeled vehicle trips include external inbound, outbound and through trips. The 2007 PM peak hour externally related trips are totaled 4724 – 751 = 3,973 while the difference between model trips and surveyed trips is about 3,976. Since the surveyed trips only

include the KMPO households, the PM peak hour modeled trips are about 12% higher than the expanded survey trips.

**Table 8:  2007 PM Peak Hour Trip Generation Validation Results**

| TRIP PURPOSE | PM-Period Expanded Survey Trips | PM Peak Hour Surveyed Vehicle Trips | PM Peak Hour Model Vehicle Trips | PM Peak Hour Model/Survey % Difference |
|---|---|---|---|---|
| Home Based Work | 13,406 | 5,805 | 6,400 | 10.3% |
| Home Based Retail | 19,463 | 5,328 | 6,123 | 14.9% |
| Home Based Other | 49,406 | 11,722 | 13,312 | 13.6% |
| Non-Home Based | 43,826 | 9,924 | 10,919 | 10.0% |
| Total | 126,101 | 32,778 | 36,754 | 12.1% |

# 6.0 AM/PM Peak Hour Trip Distribution

The KMPO VISUM model trip distributions by four primary trip purposes are based on Gravity Model functions. The a, b, and c parameters in the Gravity Model functions are re-calibrated in the 2007 KMPO model to fit the trip length distribution patterns in terms of frequencies and average travel times reported in the "Spokane and Kootenai County Regional Travel Survey Final Report."

## 6.1 Gravity Model Parameters

Figure 4 displays the home-based work gravity model function parameters and other trip distribution characteristics, such as: direction of the trip distribution balance to production; doubly constrained balancing by Multi procedure; multi-parameters with maximum number of iterations being 10 and quality factor being 3.



**Figure 4: Home-Based Work Gravity Model Functions and Parameters**

Figure 5 displays the Home-Based Retail gravity model function parameters and other trip distribution characteristics discussed above.

Figure 6 displays the Home-Based Other gravity model function parameters and other trip distribution characteristics.

**Choice model for B_H-R**

Options | Function graph

Function type
- Logit: $f(U) = e^{(c\,U)}$
- Kirchhoff: $f(U) = U^c$
- BoxCox: $f(U) = e^{[c\,(U^b - 1)\,/\,b]}$
- Combined: $f(U) = a\,U^b\,e^{(c\,U)}$
- ● TModel: $f(U) = 1\,/\,(U^b + c\,U^a)$

Parameters
- a: 0
- b: 2.45
- c: 0

Direction of the distribution
- ● Production distribution
- ○ Attraction distribution

☑ Doubly constrained: Balancing by Multi procedure

Initial matrix balancing according to:
- ○ Production totals
- ○ Attraction totals
- ● Mean of both totals
- ○ Minimum of both totals
- ○ Maximum of both totals

Multi-Parameters
- Max. no. of iterations: 10
- Quality factor: 3

Reset | OK | Cancel

**Figure 5:  Home-Based Retail Gravity Model Functions and Parameters**

**Choice model for C_H-O**

Options | Function graph

Function type
- Logit: $f(U) = e^{(c\,U)}$
- Kirchhoff: $f(U) = U^c$
- BoxCox: $f(U) = e^{[c\,(U^b - 1)\,/\,b]}$
- Combined: $f(U) = a\,U^b\,e^{(c\,U)}$
- ● TModel: $f(U) = 1\,/\,(U^b + c\,U^a)$

Parameters
- a: 0
- b: 1.55
- c: 0

Direction of the distribution
- ● Production distribution
- ○ Attraction distribution

☑ Doubly constrained: Balancing by Multi procedure

Initial matrix balancing according to:
- ○ Production totals
- ○ Attraction totals
- ● Mean of both totals
- ○ Minimum of both totals
- ○ Maximum of both totals

Multi-Parameters
- Max. no. of iterations: 10
- Quality factor: 3

Reset | OK | Cancel

**Figure 6:  Home-Based Other Gravity Model Functions and Parameters**

Figure 7 displays the Non-Home-Based gravity model function parameters and other trip distribution characteristics.
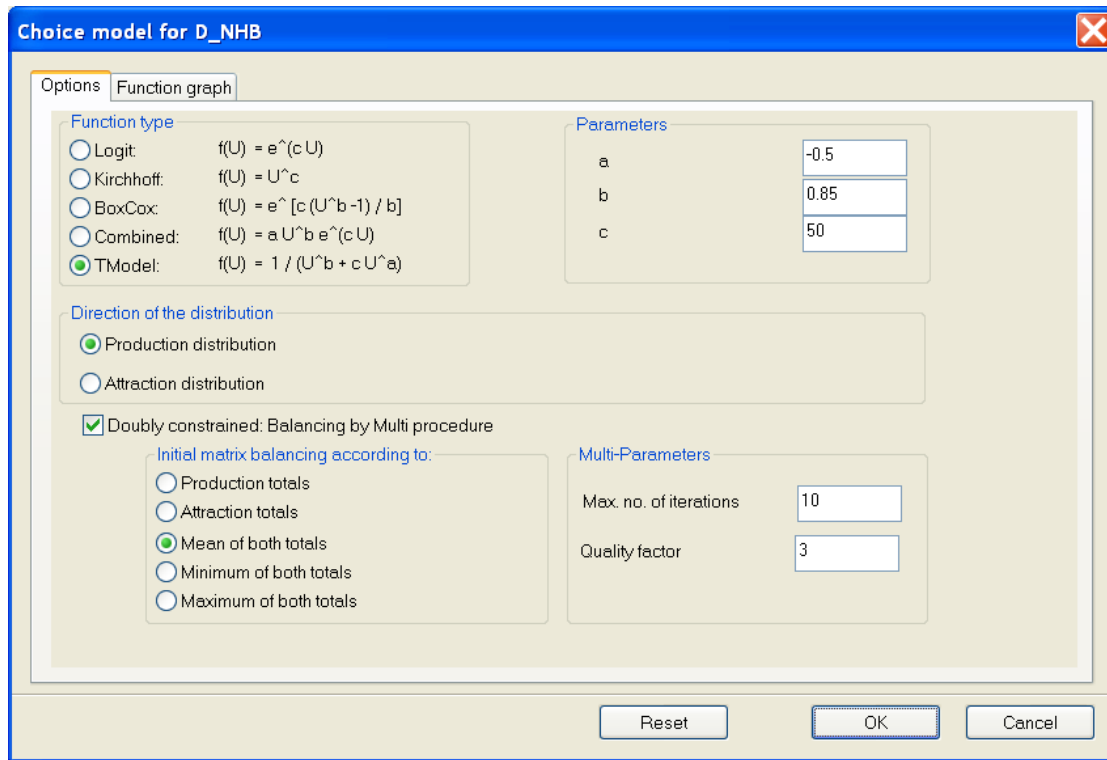


**Figure 7:  Non-Home-Based Gravity Model Functions and Parameters**

The trip distribution utility parameters are summarized in Table 9 below:

**Table 9:  2007 KMPO Model Gravity Model Parameters**

| Trip Purpose | Trip Distribution Parameter | | |
|---|---|---|---|
| | a | b | c |
| HB-Work | -0.50 | 0.55 | 20.00 |
| HB-Retail | 0.00 | 2.45 | 0.00 |
| HB-Other | 0.00 | 1.55 | 0.00 |
| Non-Home Based | -0.50 | 0.85 | 50.00 |

## 6.2    Gravity Model Calibration/Validation Results

Compared with the Gravity Model Parameters (as shown in Table 11 of the 2005 KMPO Model Documentation) in the 2005 KMPO model, the 2007 KMPO model has quite different parameters.  This is because the 2007 KMPO model has the trip distributions calibrated to the 2005 regional travel survey by trip purpose.

As shown in Table 10, the average model trip time roughly matches the average survey travel time for overall KMPO region-wide, despite some average travel time variations by trip purposes.

**Table 10: 2007 AM and PM Peak Hour Average Trip Time (Minutes) – Model vs. Survey**

| Trip Purpose | Survey TT | Model AM TT | AM %diff | Model PM TT | PM %diff |
|---|---|---|---|---|---|
| HBW | 20 | 16 | -20.9% | 17 | -15.0% |
| HBR | 15 | 16 | 7.5% | 15 | -2.1% |
| HBO | 18 | 19 | 8.7% | 16 | -6.6% |
| NHB | 16 | 16 | -0.1% | 16 | -2.2% |
| **Average TT** | 17 | 17 | 1.0% | 16 | -5.7% |

As shown in Figure 8, the Home-Based Work trip length frequency distribution for AM and PM both demonstrate similar patterns to the survey-reported trip length frequency patterns. So do the Home-Based Retail, Home-Based Other, and Non-Home Based trip distribution patterns as shown in Figures 9-11.
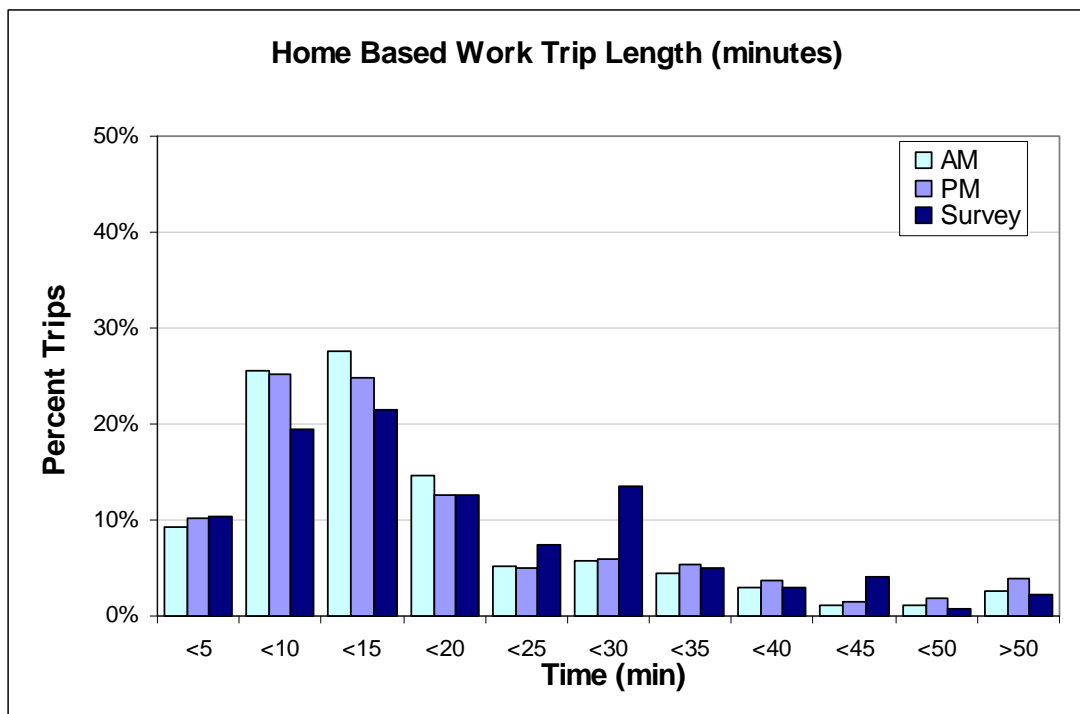


**Figure 8: Home-Based Work Trip Distribution Calibration Results**
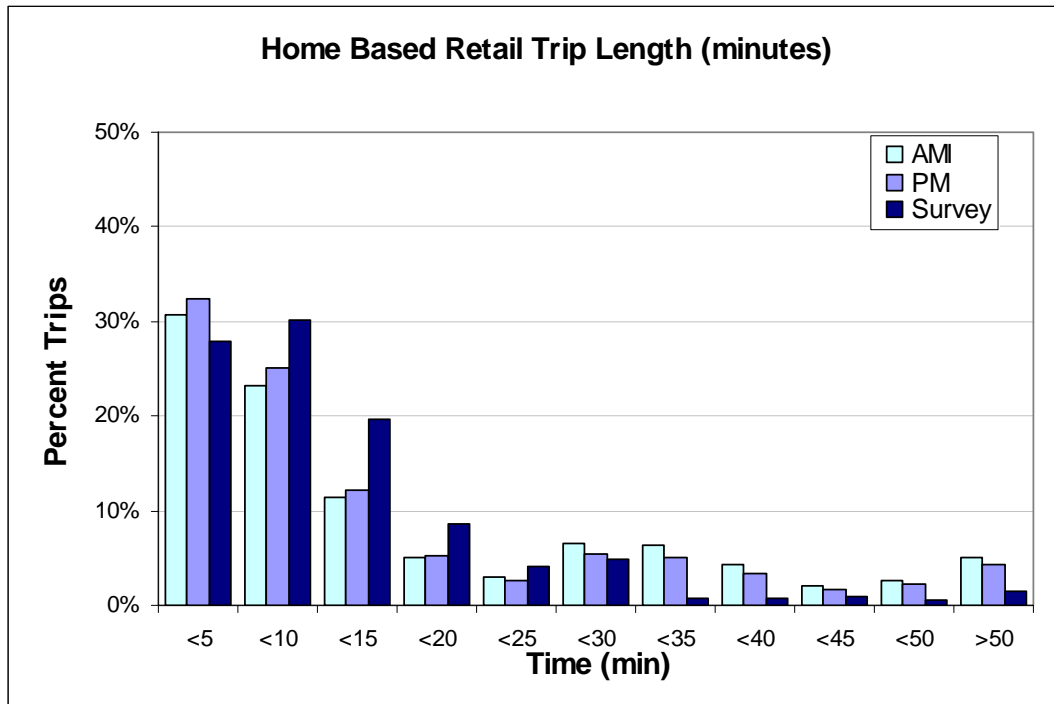
**Figure 9:  Home-Based Retail Trip Distribution Calibration Results**
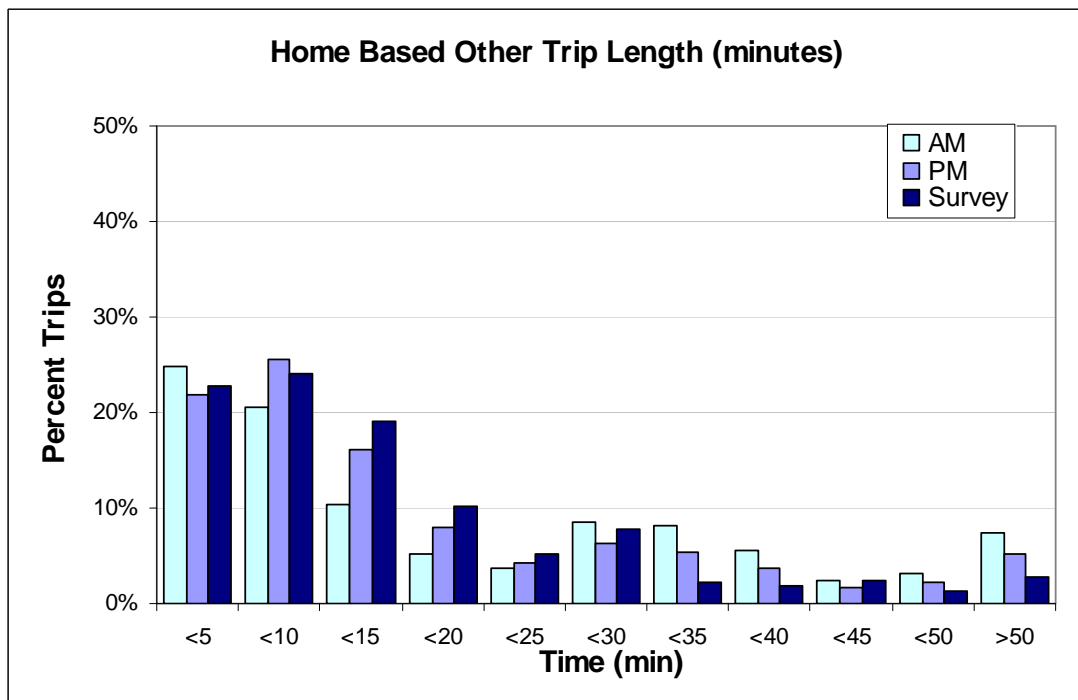


**Figure 10:  Home-Based Other Trip Distribution Calibration Results**
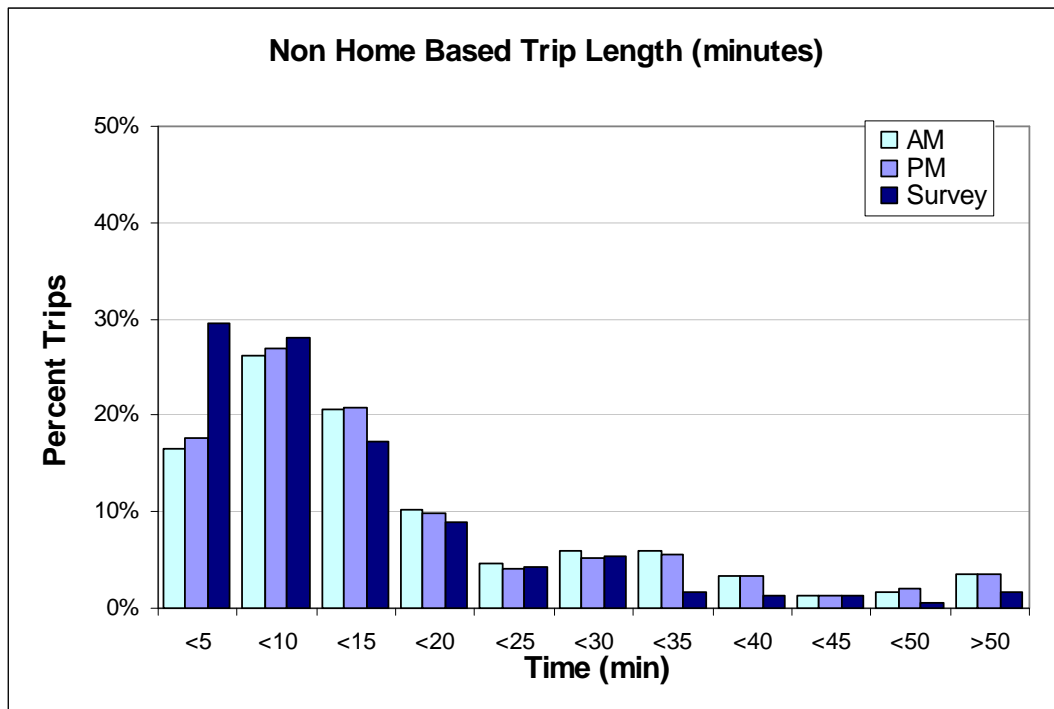
**Figure 11: Non-Home Based Trip Distribution Calibration Results**

# 7.0  AM/PM Peak Hour Traffic Assignments

The 2007 AM peak hour KMPO Model traffic assignments are displayed in Figure 12 and the 2007 PM peak hour KMPO Model traffic assignments are displayed in Figure 13.

The traffic assignment figures provide a snapshot of directional volume forecasts for the AM and PM peak hour in the urbanized KMPO area.

Since the directional traffic forecasts need to be evaluated for statistical accuracy and confidence, screenline validation analysis is performed for both AM and PM peak hour conditions.  Appendix 1G and Appendix 1H show the 2007 KMPO Model AM/PM peak hour screenline spreadsheets, respectively.

# 8.0  AM/PM Peak Hour Traffic Screenline Validation

As shown in Figure 14 and Figure 15, twenty-eight screenlines are drawn to display ratios of the 2007 KMPO model AM and PM peak hour traffic volume forecasts over their corresponding traffic counts.  Table 11 shows the summary screenline results.

**Table 11:  2007 KMPO Model AM/PM Peak Hour Screenline Summary Results**

| Screenline Location and  No. | AM Peak Hour Model/Count Ratio | PM Peak Hour Model/Count Ratio |
|---|---|---|
| Spokane River Crossing Screenline #1 | 1.04 | 1.04 |
| Seltice Screenline #2 | 1.14 | 1.29 |
| Harrison Avenue Screenline  # 3 | 0.85 | 0.75 |
| Appleway Ave/Best Screenline #4 | 0.99 | 1.03 |
| Seltice/Mullan Rd/Kathleen Screenline #5 | 0.95 | 0.85 |
| Poleline Rd Screenline #6 | 1.07 | 1.09 |
| Prairie Rd. Screenline #7 | 1.08 | 1.05 |
| Hayden Avenue Screenline #8 | 1.49 | 1.37 |
| Lancaster Rd. Screenline #9 | 1.16 | 1.12 |
| SH 53 – US 95 Screenline #10 | 0.93 | 0.89 |
| Twin Lakes to National Forest Screenline #11 | 1.33 | 1.28 |
| US 95 to SH 3 South Screenline #12 | 1.24 | 0.85 |
| SH 93 to LaTour Creek Rd Screenline #13 | 1.43 | 1.60 |
| Spirit Lake Pend'O Reille Screenline #14 | 1.04 | 0.96 |
| Pleasant View Rd Screenline #15 | 0.89 | 0.95 |
| McGuire Rd. Screenline #16 | 1.08 | 1.12 |
| Chase Rd. Screenline #17 | 1.02 | 1.01 |
| Spokane St. Screenline #18 | 0.88 | 0.83 |
| Idaho St. Screenline #19 | 1.29 | 1.13 |
| Greensferry Rd. Screenline #20 | 0.97 | 0.99 |
| SH 41 Screenline #21 | 0.87 | 0.84 |
| Huetter Rd. Screenline #22 | 1.18 | 1.37 |
| Ramsey Rd. Screenline #23 | 0.96 | 0.92 |
| US 95 Screenline #24 | 1.06 | 0.88 |
| West Side KMPO Screenline #25 | 0.93 | 0.94 |
| East Side KMPO Screenline #26 | 1.39 | 1.39 |
| Government Way Screenline #27 | 1.05 | 0.89 |
| I-90 Ramps Screenline #28 | 1.18 | 1.13 |
| Overall Screenline | 1.05 | 1.00 |

The closer the model/count ratios by screenlines approach 1.00, the better matches the screenline traffic volumes are compared with the traffic counts.  The Federal Highway Administration (FHWA) developed a maximum allowable screenline validation error range and formula as shown below:

### % Allowable Deviation per TMIP FHA

For volumes less than 100,000:
Tol (%) = 1/100 * [(-0.00005*(V)^3 + 0.013*(V)^2-1.1822*(V)+65.465)]
For over 100,000:
Tol (%) = 2.1783*(V)^-0.4784
Where V is volume in thousands

By using the formula, the screenlines can be evaluated to see if they meet the percent allowable deviation ranges.  Figure 16 and Figure 17 display the screenline validations against FHWA Maximum Allowable Error Range (Source: **Figure 7-2 Maximum Desirable Deviation in Total Screenline Volumes** in the *Model Validation and Reasonableness Checking Manual* published by FHWA Travel Model Improvement Program).

By the FHWA standards, the 2007 KMPO Model is validated for both AM peak hour and PM peak hour, and can be used to build future year travel demand models in KMPO areas.
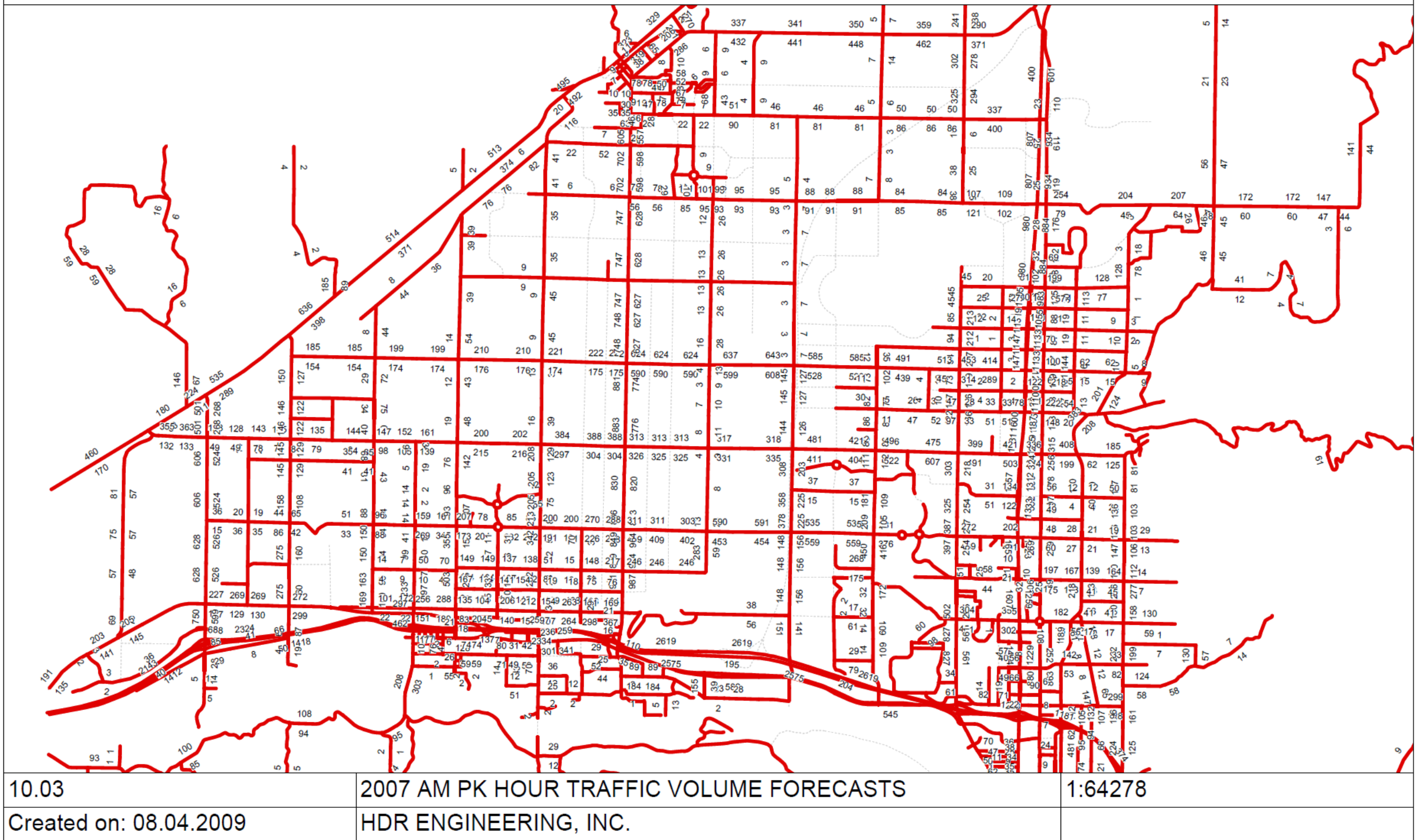
Figure 12: 2007 KMPO VISUM Model AM Peak Hour Traffic Assignment Results

# 2007 KMPO VISUM TRAVEL DEMAND MODEL



| 10.03 | 2007 KPMO PK PK Hour Volume Forecasts | 1:80348 |
| --- | --- | --- |
| Created on: 08.04.2009 | HDR ENGINEERING, INC. | |
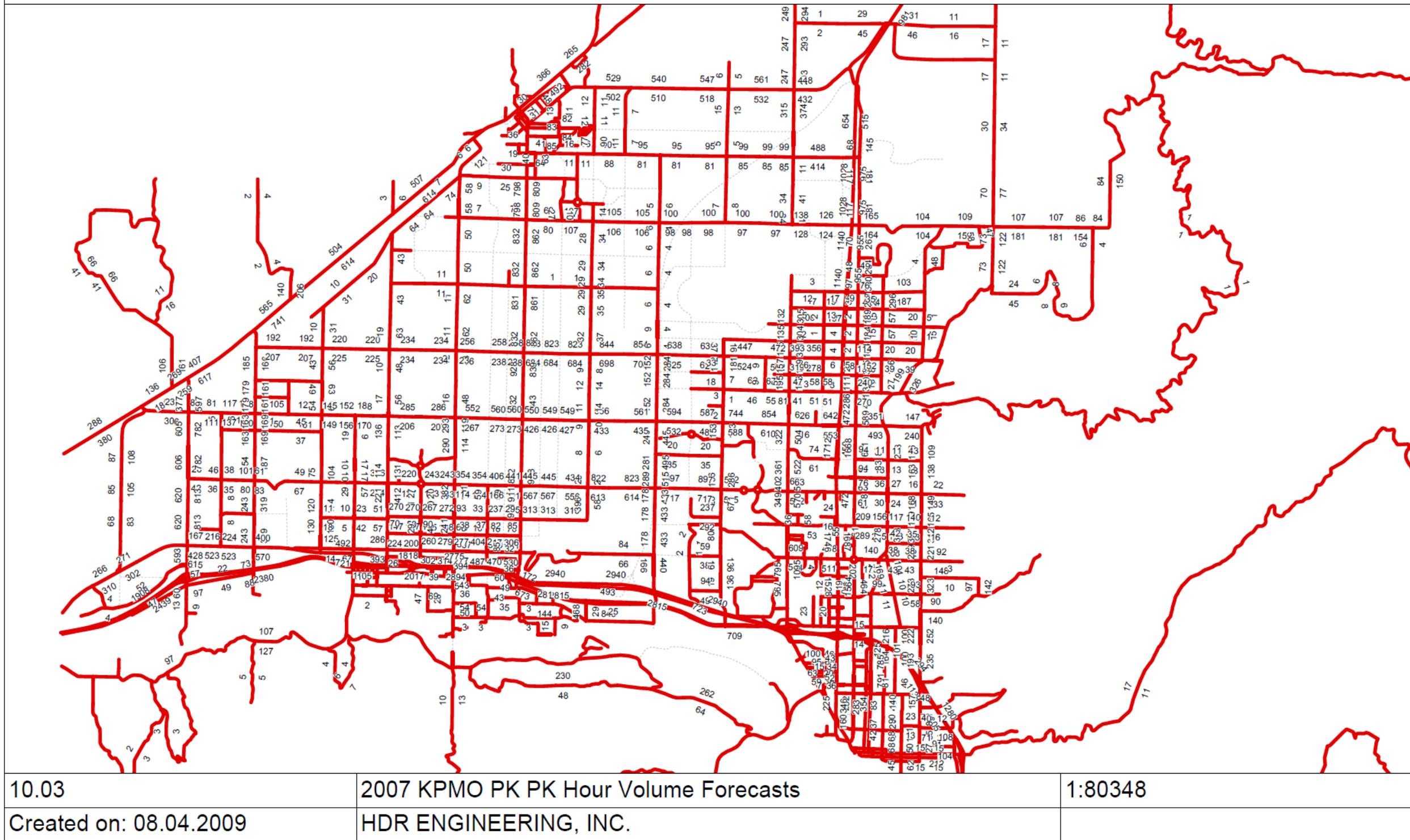
**Figure 13: 2007 KMPO VISUM Model PM Peak Hour Traffic Assignment Results**

# 2007 KMPO VISUM Travel Demand Model



| 10.03 | 2007 KMPO VISUM Model AM PK Hour Model/Count Ratio by Screenlines | 1:84719 |
| --- | --- | --- |
| Created on: 20.03.2009 | HDR Engineering, Inc. | |
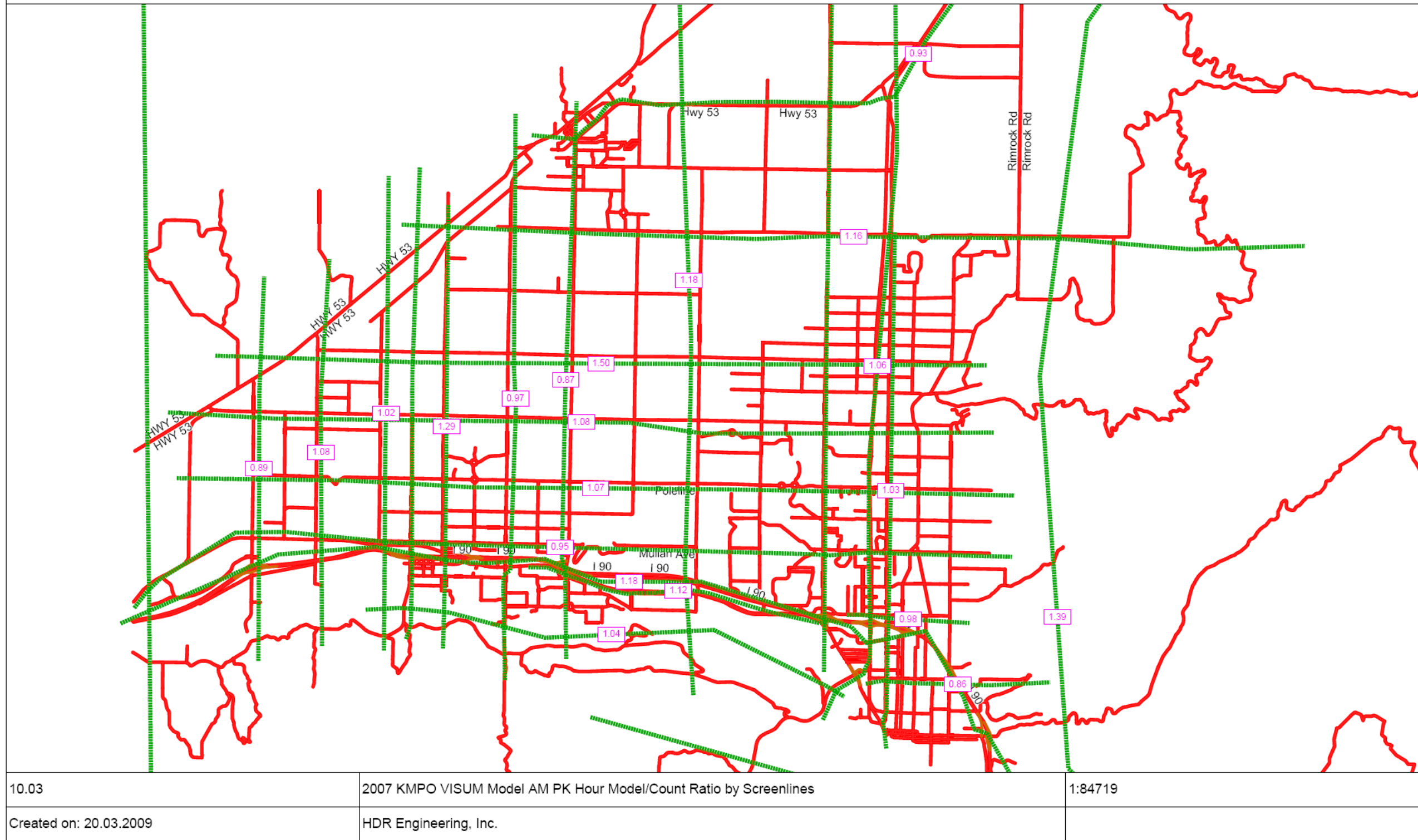
**Figure 14: 2007 KMPO VISUM Model AM Peak Hour Traffic Forecast Screenline Results**

# 2007 KMPO VISUM TRAVEL DEMAND MODEL

Hwy 53    Hwy 53

Rimrock Rd    Rimrock Rd

0.89

0.91  1.12

1.16

Miles

1.36    1.07

0.83

0.99

1.03  0.84

1.14    1.05

1.12

0.96

1.09    Poleline    0.88

0.88    Mullan Ave

I 90    I 90    I 90

1.12

1.28    I 90    Thomas Ln    Thomas Ln

1.04    1.03    1.39

0.76

HWY 53    HWY 53    HWY 53    HWY 53

| 10.03 | 2007 PM PK Hour Model/Count Ratio by Screenlines | 1:78251 |
|---|---|---|
| Created on: 20.03.2009 | HDR Engineering, Inc. | |
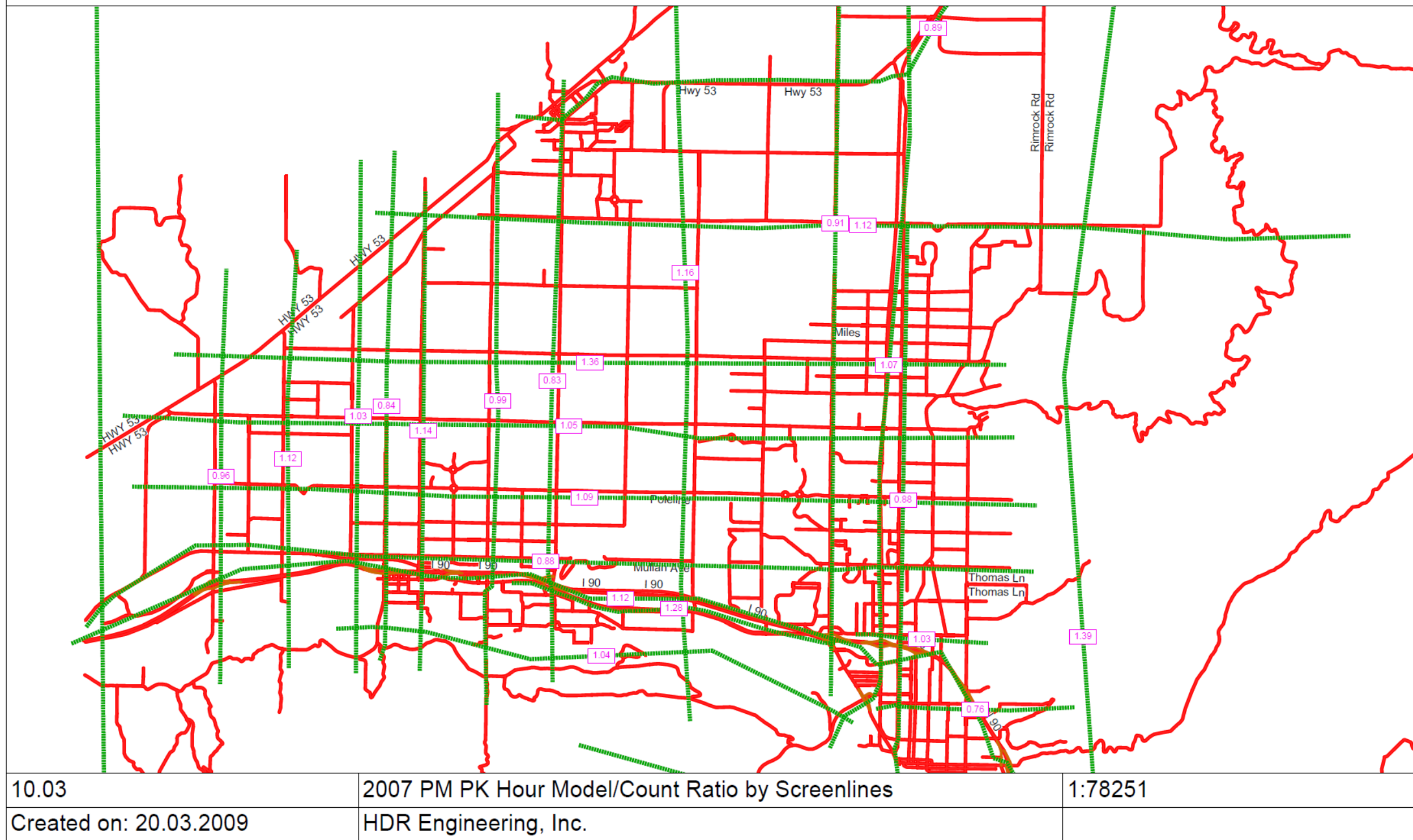
**Figure 15: 2007 KMPO VISUM Model PM Peak Hour Traffic Forecast Screenline Results**
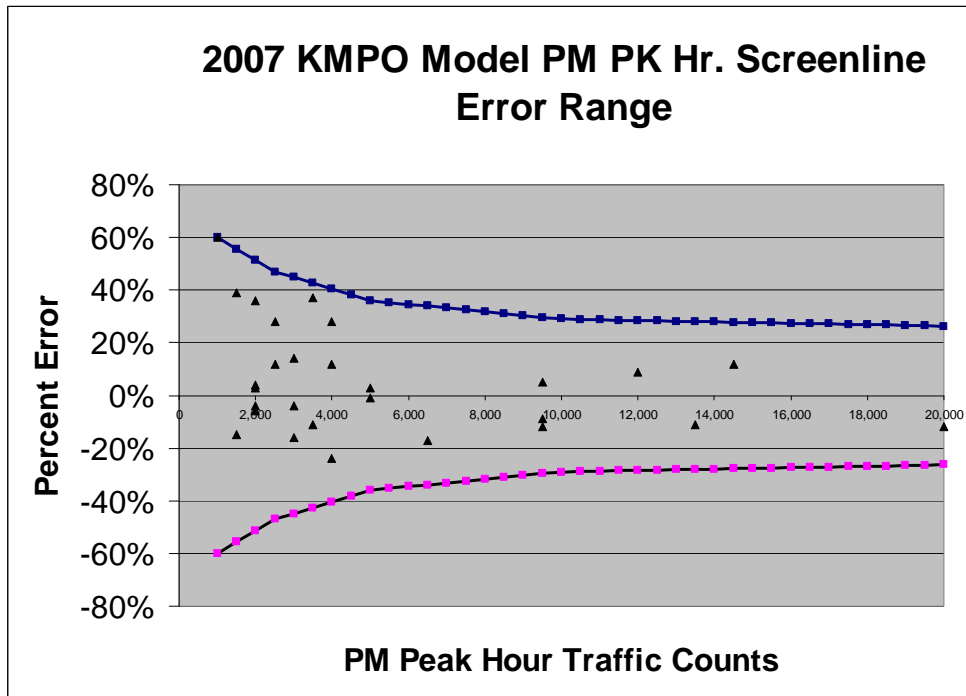
**Figure 16: 2007 KMPO Model AM Peak Hour Screenline Error Range**
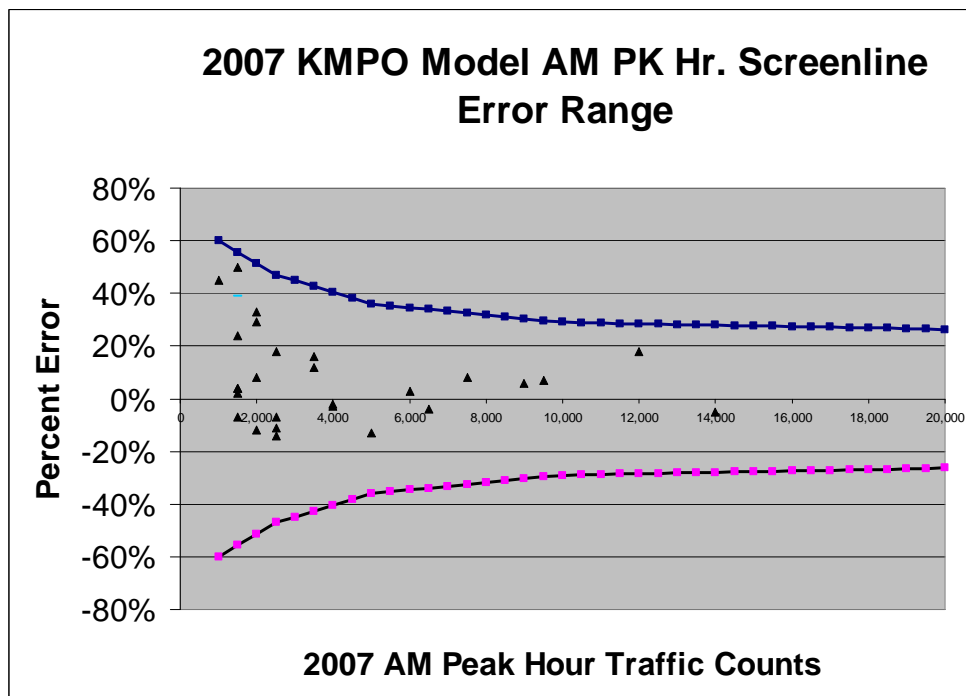


**Figure 17: 2007 KMPO Model PM Peak Hour Screenline Error Range**

# 9.0 Model Limitations and Improvements

The 2007 KMPO model has some limitations that lead to potential improvements in the future.

- The KMPO model is vehicle based travel demand forecasting model and does not have multimodal forecasting capability as the model only follows the three steps of the traditional four-step modeling procedures: trip generation, trip distribution, and trip assignment without the mode choice modeling step.

- The model trip generation rates are simply based on the ITE Trip Generation Manual but not based on the regional travel survey data, although the total trips generated by purpose are calibrated against the 2005 Kootenai/Spokane expanded travel survey results.

- The model produces better traffic forecasts in the urbanized area with higher traffic volume than in the rural area with lower traffic volumes possibly because of the larger zones and less street network in rural areas, or because the rural areas have lower trip generation rates than the ITE urban and suburban trip generation rates used in the KMPO model. Further statistical analysis of the rural and urban area travel behaviors will help evaluate this hypothesis.

- The trip distribution patterns roughly match with the 2005 regional travel survey; however, the statistics extracted from the travel survey do not separate the AM and PM conditions; therefore, further statistical analysis of the "2005 Spokane and Kootenai County Regional Travel Survey" may be needed to enhance the trip distribution pattern accuracy.

- The intersection delay calculations are removed from the demand model because of the overlapping with the link delay calculation; the link and node delay relationship should be further evaluated to determine their corresponding applicability in the model.

- Intersection level of service calculation can be implemented by VISUM module TRAFFIX based on the Highway Capacity Manual but was not done at this update and should be implemented for operational analysis in the future.

- Some local zonal details or network details may not be sufficient to reflect the traffic forecast conditions in the local sub-area transportation study and planning, and may be enhanced further to meet the local travel demand modeling needs in the future.

# Appendices

# Appendix 1A:  KMPOGUI.PY
## — KMPO Graphic User Interface Python script file

```
#!/usr/bin/env python
#Boa:App:BoaApp

import wx, os
global numarray
from numarray import *
import KMPOFrame

modules={'MainFrame':[1,'Main frame', u'KMPOFrame.py']}

class BoaApp(wx.App):
    def OnInit(self):
        wx.InitAllImageHandlers()
        self.main=KMPOFrame.create(None)
        self.main.Show()
        self.SetTopWindow(self.main)
        return True

def main():
    application = BoaApp(0)
    os.chdir("..")
    application.MainLoop()

if __name__ == '__main__':
    main()
```

# Appendix 1B:  KMPO Project dir file.pdf
# - KMPO Project directory file that stores the model

```
* Networks
Netze                                              "W:\087219\KMPO Model\KMPO
Model Run\"                               net
* Versions
Versionen                                          "W:\087219\KMPO Model\KMPO
Model Run\"                               ver
* OD matrices
Quelle-Ziel-Matrizen                               "W:\087219\KMPO Model\KMPO
Model Run\"                               mtx
* Skim matrices
Kenngroessenmatrizen                               "W:\087219\KMPO Model\KMPO
Model Run\"                               *
* OD demand data
Nachfragedaten                                     "W:\087219\KMPO Model\KMPO
Model Run\"                               dmd
* MultiUser networks
MultiUserNetze                                     "W:\087219\KMPO Model\KMPO
Model Run\"                               NotEdita
* Project directories
Projektverzeichnisse                               "C:\Documents and
Settings\bgow\Desktop\FULL Model RUNS\MODEL RUNS\"  pfd
* Graphic parameters
Grafikparameter                                    "W:\087219\KMPO Model\KMPO
Model Run\"                               gpa
* Background Files
Hintergrunddateien                                 "W:\087219\KMPO Model\KMPO
Model Run\"                               hgr
* Texts
Texte                                              "W:\087219\KMPO Model\KMPO
Model Run\"                               txt
* Procedure parameters(bin)
Verfahrensparameter(bin)                           "W:\087219\KMPO Model\KMPO
Model Run\"                               par;xml
* RASW-Scen
RASW-Fall                                          "W:\087219\KMPO Model\KMPO
Model Run\"                               rwf
* Attributes
Attribute                                          "W:\087219\KMPO Model\KMPO
Model Run\"                               att
* Environmental param.
Umweltparameter                                    "W:\087219\KMPO Model\KMPO
Model Run\"                               upa
* List-Layout
Listen-Layout                                      "W:\087219\KMPO Model\KMPO
Model Run\"                               lla
* Filter
Filter                                             "W:\087219\KMPO Model\KMPO
Model Run\"                               fil
* Active Network Objects
Aktive Netzelemente                                "W:\087219\KMPO Model\KMPO
Model Run\"                               ane
* VISSIM network
VISSIM-Netz                                        "W:\087219\KMPO Model\KMPO
Model Run\"                               inp
* Shapefile
Shapefile                                          "W:\087219\KMPO Model\KMPO
Model Run\"                               NotEdita
* Survey parameters
Erhebungsparameter                                 "W:\087219\KMPO Model\KMPO
Model Run\"                               sup
```

```
* Survey data
Erhebungsdaten                                     "W:\087219\KMPO Model\KMPO
Model Run\"                          sur
* Access database
Access-Datenbank                                   "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
* EMME/2
Emme                                               "W:\087219\KMPO Model\KMPO
Model Run\"                          *
* VISSIM Export parameters
VISSIM-Exportparameter                             "W:\087219\KMPO Model\KMPO
Model Run\"                          vep
* References
Verknuepfungen                                     "W:\087219\KMPO Model\KMPO
Model Run\"                          *
* Image files
Bilddateien                                        "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
* SVG files
SVG-Dateien                                        "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
* NEMA files
NEMA-Dateien                                       "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
* TModel files
TModel-Dateien                                     "W:\087219\KMPO Model\KMPO
Model Run\"                          *
* Script files
Skript-Dateien                                     "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
* TLY files
TLY-Dateien                                        "W:\087219\KMPO Model\KMPO
Model Run\"                          tly
* HAFAS project files
HAFAS-Projektdateien                               "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
* MUULI Log files
MUULI-Log-Dateien                                  "W:\087219\KMPO Model\KMPO
Model Run\"                          mlg
* Screenshots
Screenshots                                        "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
* Connection file
Verbindungsdatei                                   "W:\087219\KMPO Model\KMPO
Model Run\"                          con
* Timetable Editor Graphic parameters
Grafikparameter Fahrplaneditor                     "W:\087219\KMPO Model\KMPO
Model Run\"                          gpt
* Timetable Editor Network Graph
Fahrplaneditor Netzgraph                           "W:\087219\KMPO Model\KMPO
Model Run\"                          *
* Route import
Routen-Import                                       "W:\087219\KMPO Model\KMPO
Model Run\"                          rim
* Legend parameters
Legenden-Parameter                                 "W:\087219\KMPO Model\KMPO
Model Run\"                          lgd
* Backgrounds
Hintergruende                                      "W:\087219\KMPO Model\KMPO
Model Run\"                          NotEdita
```

```
* Procedure parameters(XML)
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Model Run\"                        xml
* TRAFFIX files
TRAFFIX-Dateien                        "W:\087219\KMPO Model\KMPO
Model Run\"                        *
* Additive network reading Parameters
Additives-Netzlesen-Para                        "W:\087219\KMPO Model\KMPO
Model Run\"                        anrp
* Script menu files
Skriptmenue-Dateien                        "W:\087219\KMPO Model\KMPO
Model Run\"                        xml
* DXF files
DXF-Dateien                        "W:\087219\KMPO Model\KMPO
Model Run\"                        NotEdita
* Difference Network
Differenznetz                        "W:\087219\KMPO Model\KMPO
Model Run\"                        diffnet
```

# Appendix 1C:  UpdateNodeLinkCapTWTL.par
# - A parameter file to update node/link capacity
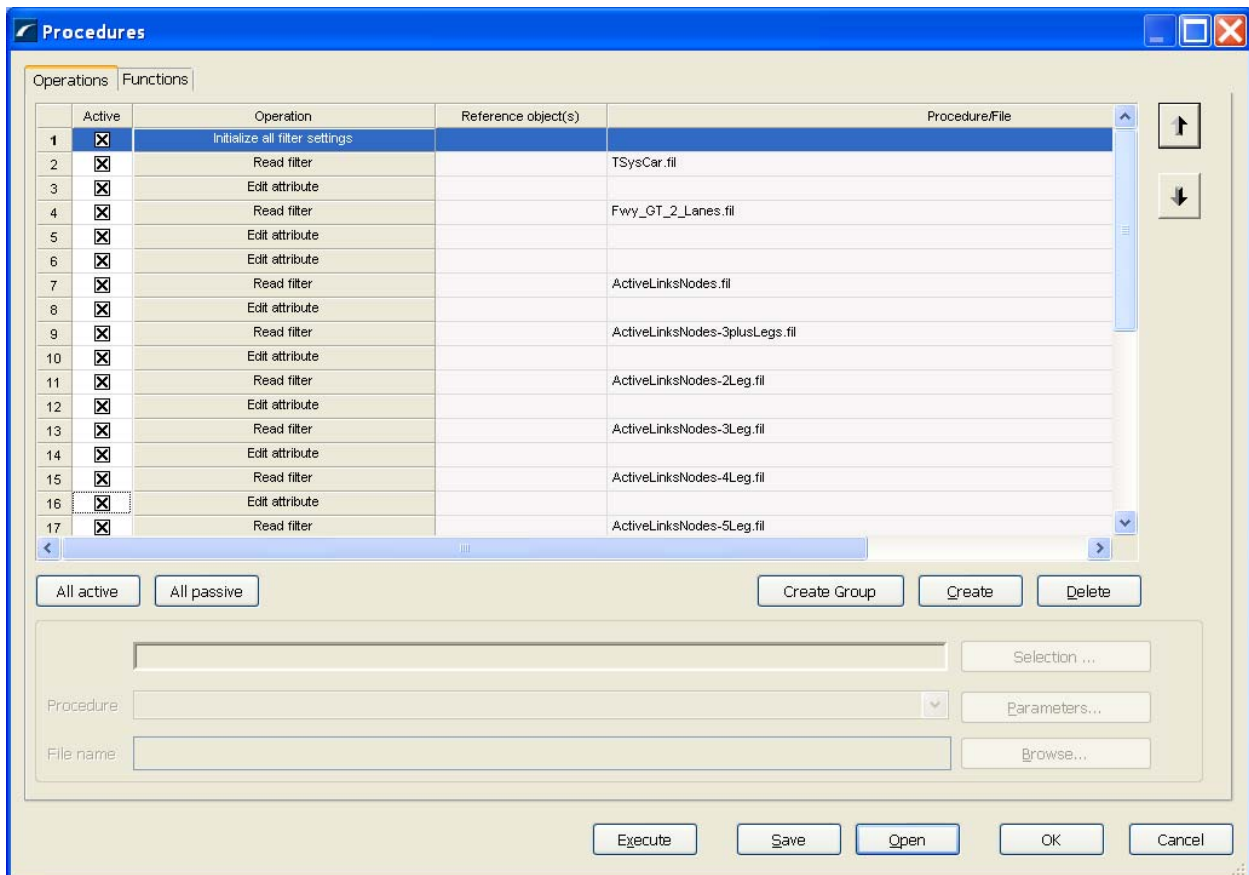
# Appendix 1D: KMPO-Model-AMPKHR.par
## - A parameter file for AM peak hour KMPO Model

# Appendix 1E:  KMPO-Model_PMPKHR.par
## -  A parameter file for PM peak hour KMPO Model

**Procedures**

Operations | Functions

| | Active | Operation | Reference object(s) | Procedure/File |
|---|---|---|---|---|
| 1 | ☒ | Init assignment | | All |
| 2 | ☒ | Read filter | | TSysCarLinks.fil |
| 3 | ☒ | Edit attribute | | |
| 4 | ☒ | Edit attribute | | |
| 5 | ☒ | Trip generation | All DEFAULT-DemandStrata | |
| 6 | ☒ | Run script | | ProdAttrBalancingKMPO-PM.py |
| 7 | ☒ | Run script | | AdjustTripGenKMPO6-PM.py |
| 8 | ☒ | Calculate skim matrix | A_HBW A_HBW | |
| 9 | ☒ | Calculate skim matrix | A_HBW A_HBW | |
| 10 | ☒ | Combination of skim matrices and vectors | 1 TT0 (A_HBW A_HBW) | |
| 11 | ☒ | Run script | | calculateIntrazonalKMPO-PM.py |
| 12 | ☒ | Combination of skim matrices and vectors | 4 TTavg | |
| 13 | ☒ | Save skim matrix | 4 TTavg | FinalSkim.TTC |
| 14 | ☒ | Trip distribution | All DEFAULT-DemandStrata | |
| 15 | ☒ | Combination of OD matrices and vectors | 7 HBW | |
| 16 | ☒ | Combination of OD matrices and vectors | 8 HBR | |
| 17 | ☒ | Combination of OD matrices and vectors | 9 HBO | |

All active | All passive | | Create Group | Create | Delete

Selection ...

Procedure | All | Parameters...

File name | | Browse...

Execute | Save | Open | OK | Cancel

# Appendix 1F:  KMPO Model Run Script.py
# - A Python Script file to track AM/PM model runs

```
global numarray
global zeros, Float32
import win32com.client
import threading
from numarray import *
from time import *

class testit(threading.Thread):

    def __init__(self, visum, pfdName, finalVersion, Link_and_Node_Capacity,
AM_Assignment_Par, PM_Assignment_Par):

        threading.Thread.__init__(self)
        self.visum = visum
        self.pfdName = pfdName
        self.finalVersion = finalVersion
        self.Link_and_Node_Capacity = Link_and_Node_Capacity ##par1
        self.AM_Assignment_Par = AM_Assignment_Par ##par2
        self.PM_Assignment_Par = PM_Assignment_Par ##par3


    def run(self):
        global Flag1, Flag2
        global modeChoiceAMmat, modeChoiceMDmat
        global distribMDmat, distribAMmat
        global FlagTDMCMD, FlagTDMCAM, FlagDataAM1,
FlagDataAM2,FlagDataMD1,FlagDataMD2
        global AMConverge
        global MDConverge
        global AssignAM
        global AssignMD
        global FlagAM, FlagMD
        global prevLOVmd, prevHOVmd, prevTruckmd
        global mat3AM, mat4AM, mat5AM, mat3MD, mat4MD, mat5MD
        global diffMatAM, diffMatMD, perMatAM, perMatMD, AMavgFlag, MDavgFlag
        global numarray
        import win32api
        import win32com.client
        import pythoncom
        import sys
        import time
        import numarray

        sys.coinit_flags = 0
        pythoncom.CoInitialize()

        self.v = win32com.client.Dispatch("Visum.Visum.10")
        self.v.LoadPathFile(self.pfdName)
        print "Model Run Started!"

        try:
            print "Loading Version File..."
            self.v.LoadVersion(self.visum)
        except:
            print "Error Loading Version File for:"
            x = self.v.Messages
            for i in range(0,len(x)):
                print x[i].Text

##        ######Calculate Link Node Capacity#########
```

```
        try:
            print "Calculating Link Node Capacity..."
            self.v.Procedures.Open(self.Link_and_Node_Capacity)
            self.v.Procedures.Execute()
        except:
            print "Error Calculating Link Node Capacity..."
            x = self.v.Messages
            for i in range(0,len(x)):
                print x[i].Text

        try:
            print "Running AM PEAK Assignment......"
            self.v.Procedures.Open(self.AM_Assignment_Par)
            self.v.Procedures.Execute()
            print "AM PEAK Assignment Completed"
        except:
            print "Error AM PEAK Assignment..."
            x = self.v.Messages
            for i in range(0,len(x)):
                print x[i].Text

        try:
            print "Running PM PEAK Assignment......"
            self.v.Procedures.Open(self.PM_Assignment_Par)
            self.v.Procedures.Execute()
            print "PM PEAK Assignment Completed"
        except:
            print "Error PM PEAK Assignment..."
            x = self.v.Messages
            for i in range(0,len(x)):
                print x[i].Text

#################Save Version File#############################
        x = self.v.Messages
        if len(x)>0:
            print "Warnings Encountered"
            for i in range(0,len(x)):
                print x[i].Text
            print "Saving Final Version..."
        self.v.SaveVersion(self.finalVersion)
        print "Model Run Completed!"

def readCSV(fileName):
    import csv
    '''Reads csv file into a dictionary with the following keys
    folderLocation, versionName, numIterations, finalVersion, emails,
runScript'''
    f = open(fileName, "r")
    reader = csv.reader(f)
    y = []
    for x in reader:
        y.append(x)
    return dict(y)


runParams = readCSV("runall.csv")
finalversion = runParams['finalVersion']
netName1 = runParams['versionName']
pathfile = runParams['folderLocation']
```

```
Link_and_Node_Capacity = runParams['NodeLinkCapUpdate'] ##par1
AM_Assignment_Par = runParams['AMassignment']  ##par2
PM_Assignment_Par = runParams['PMassignment']  ##par3

t = testit(netName1, pathfile, finalversion, Link_and_Node_Capacity,
AM_Assignment_Par, PM_Assignment_Par)
t.run()
```

# Appendix 1G:  2007 KMPO Model AM Peak Hour Screenline Validation Spreadsheets

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR)

RUN # 9b    2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

Date: 3/20/2009

File Location    W:\087219\KMPO Model\KMPO Model Run\Screenlines\

Originated by: Tony Wang

Checked by: Revised Template by Jin Ren

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**SCREENLINE NUMBER: #1**
**SCREENLINE LOCATION: Spokane River Crossing Screenline #1**

| SL Section | | Corresponding Links: SB/EB to NB/WB | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 818 | 842 | Spokane St. | 271 | 413 | 0.66 | 135 | 217 | 0.62 | 136 | 196 | 0.69 |
| 889 | 9963 | US 95 @ Spokane River Bridge | 1251 | 1051 | 1.19 | 602 | 456 | 1.32 | 649 | 595 | 1.09 |
| | | TOTAL | 1522 | 1464 | 1.04 | 737 | 673 | 1.10 | 785 | 791 | 0.99 |

**SCREENLINE NUMBER: #2**
**SCREENLINE LOCATION: Seltice Screenline #2**

| SL Section | | Corresponding Links: SB/EB to NB/WB | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 774 | 9814 | Huetter Rd | 293 | 258 | 1.14 | 152 | 180 | 0.84 | 141 | 78 | 1.81 |
| 9388 | 9815 | Altas Rd | 229 | 556 | 0.41 | 92 | 342 | 0.27 | 137 | 214 | 0.64 |
| 843 | 9789 | Ramsey Rd | 2728 | 1982 | 1.38 | 1555 | 1290 | 1.21 | 1173 | 692 | 1.70 |
| 734 | 9272 | Ross Point Rd | 283 | 463 | 0.61 | 105 | 130 | 0.81 | 178 | 333 | 0.53 |
| 755 | 790 | Cedar St | 374 | 253 | 1.48 | 25 | 74 | 0.34 | 349 | 179 | 1.95 |
| 9960 | 9884 | Seeley Rd | 194 | 79 | 2.46 | 155 | 35 | 4.43 | 39 | 44 | 0.89 |
| | | TOTAL | 4101 | 3591 | 1.14 | 2084 | 2051 | 1.02 | 2017 | 1540 | 1.31 |

**SCREENLINE NUMBER: #3**
**SCREENLINE LOCATION: Harrison Ave. Screenline #3**

| SL Section | | Corresponding Links: SB/EB to NB/WB | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 899 | 9144 | Government Way | 480 | 363 | 1.32 | 333 | 194 | 1.72 | 147 | 169 | 0.87 |
| 901 | 917 | 3rd St | 698 | 792 | 0.88 | 263 | 447 | 0.59 | 435 | 345 | 1.26 |
| 904 | 919 | 7th St | 86 | 227 | 0.38 | 49 | 103 | 0.48 | 37 | 124 | 0.30 |
| 907 | 920 | 11th St | 217 | 147 | 1.48 | 129 | 60 | 2.15 | 88 | 87 | 1.01 |
| 910 | 921 | 15th St | 552 | 871 | 0.63 | 264 | 385 | 0.69 | 288 | 486 | 0.59 |
| | | TOTAL | 2033 | 2400 | 0.85 | 1038 | 1189 | 0.87 | 995 | 1211 | 0.82 |

**SCREENLINE NUMBER: #4**
**SCREENLINE LOCATION: Appleway Ave/Best Screenline #4**

| SL Section | | Corresponding Links: SB/EB to NB/WB | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 831 | 9424 | SR 95 | 2368 | 2389 | 0.99 | 1332 | 1623 | 0.82 | 1036 | 766 | 1.35 |
| 833 | 851 | Government Way | 1118 | 874 | 1.28 | 707 | 540 | 1.31 | 411 | 334 | 1.23 |
| 841 | 866 | 15th St | 357 | 616 | 0.58 | 196 | 379 | 0.52 | 161 | 237 | 0.68 |
| | | TOTAL | 3843 | 3879 | 0.99 | 2235 | 2542 | 0.88 | 1608 | 1337 | 1.20 |

| PROJECT TITLE: | KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION |
| SCENARIO TITLE: | 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR) |

| RUN # 9b | 2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay |

| Date: | 3/20/2009 |
| File Location | W:\087219\KMPO Model\KMPO Model Run\Screenlines\ |
| Originated by: | Tony Wang |
| Checked by: | Revised Template by Jin Ren |

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| SCREENLINE NUMBER: | #5 | | | | | | | | | | |
| SCREENLINE LOCATION: | Seltice/Mullan Rd/Kathleen Screenline #5 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 681 | 682 | Idaho St. | 1036 | 1024 | 1.01 | 681 | 658 | 1.03 | 355 | 366 | 0.97 |
| | 658 | 9004 | Spokane St. | 647 | 688 | 0.94 | 349 | 358 | 0.97 | 298 | 330 | 0.90 |
| | 660 | 681 | Idaho St. | 837 | 872 | 0.96 | 592 | 511 | 1.16 | 245 | 361 | 0.68 |
| | 9422 | 734 | SR 41 | 1308 | 1507 | 0.87 | 715 | 792 | 0.90 | 593 | 715 | 0.83 |
| | 9015 | 9900 | Baugh Rd | 5 | 101 | 0.05 | 2 | 71 | 0.03 | 3 | 30 | 0.10 |
| | 9017 | 647 | Pleasant View Rd | 1170 | 621 | 1.88 | 631 | 377 | 1.67 | 539 | 244 | 2.21 |
| | 10160 | 9397 | Government Way | 561 | 844 | 0.66 | 273 | 473 | 0.58 | 288 | 371 | 0.78 |
| | 664 | 683 | Greensferry Rd | 6 | 91 | 0.07 | 4 | 54 | 0.07 | 2 | 37 | 0.05 |
| | 669 | 715 | SR 41 | 2195 | 1839 | 1.19 | 1256 | 1165 | 1.08 | 939 | 674 | 1.39 |
| | 685 | 738 | Huetter Rd | 292 | 287 | 1.02 | 151 | 217 | 0.70 | 141 | 70 | 2.01 |
| | 687 | 739 | Altas Rd | 123 | 531 | 0.23 | 14 | 257 | 0.05 | 109 | 274 | 0.40 |
| | 689 | 743 | Ramsey Rd | 1388 | 2088 | 0.66 | 827 | 1320 | 0.63 | 561 | 768 | 0.73 |
| | 691 | 9421 | US 95 | 2687 | 2154 | 1.25 | 1468 | 1309 | 1.12 | 1219 | 845 | 1.44 |
| | 695 | 746 | 4th St | 362 | 496 | 0.73 | 189 | 282 | 0.67 | 173 | 214 | 0.81 |
| | 698 | 716 | 15th St | 470 | 692 | 0.68 | 269 | 333 | 0.81 | 201 | 359 | 0.56 |
| | | | TOTAL | 13087 | 13835 | 0.95 | 7421 | 8177 | 0.91 | 5666 | 5658 | 1.00 |

| SCREENLINE NUMBER: | #6 | | | | | | | | | | |
| SCREENLINE LOCATION: | Poleline Rd Screenline #6 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 544 | 595 | Pleasant View Rd | 1154 | 428 | 2.70 | 628 | 284 | 2.21 | 526 | 144 | 3.65 |
| | 550 | 579 | Chase Rd. | 244 | 273 | 0.89 | 150 | 111 | 1.35 | 94 | 162 | 0.58 |
| | 552 | 580 | Spokane St | 55 | 428 | 0.13 | 41 | 274 | 0.15 | 14 | 154 | 0.09 |
| | 554 | 581 | Idaho St | 505 | 495 | 1.02 | 355 | 320 | 1.11 | 150 | 175 | 0.86 |
| | 558 | 583 | Greensferry Rd. | 395 | 259 | 1.53 | 342 | 109 | 3.14 | 53 | 150 | 0.35 |
| | 562 | 585 | SR41 | 1813 | 1619 | 1.12 | 849 | 982 | 0.86 | 964 | 637 | 1.51 |
| | 1100 | 587 | Huetter Rd | 304 | 229 | 1.33 | 148 | 148 | 1.00 | 156 | 81 | 1.93 |
| | 9458 | 9063 | Atlas Rd | 866 | 802 | 1.08 | 450 | 502 | 0.90 | 416 | 300 | 1.39 |
| | 569 | 590 | Ramsey Rd | 651 | 1121 | 0.58 | 397 | 662 | 0.60 | 254 | 459 | 0.55 |
| | 571 | 615 | US 95 | 3076 | 2074 | 1.48 | 1653 | 1347 | 1.23 | 1423 | 727 | 1.96 |
| | 573 | 592 | Government Way | 568 | 845 | 0.67 | 269 | 513 | 0.52 | 299 | 332 | 0.90 |
| | 575 | 9052 | 4th St | 305 | 482 | 0.63 | 150 | 320 | 0.47 | 155 | 162 | 0.96 |
| | 577 | 594 | 15th St | 253 | 473 | 0.53 | 147 | 269 | 0.55 | 106 | 204 | 0.52 |
| | | | TOTAL | 10189 | 9528 | 1.07 | 5579 | 5841 | 0.96 | 4610 | 3687 | 1.25 |

**PROJECT TITLE:** KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
**SCENARIO TITLE:** 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR)

**RUN # 9b** 2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

**Date:** 3/20/2009

**File Location** W:\087219\KMPO Model\KMPO Model Run\Screenlines\

**Originated by:** Tony Wang

**Checked by:** Revised Template by Jin Ren

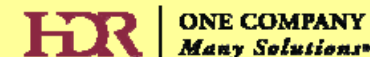| SCREENLINE NUMBER: | #7 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Prairie Rd. Screenline #7 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 476 | 9386 | McGuire Rd | 274 | 70 | 3.91 | 145 | 44 | 3.30 | 129 | 26 | 4.96 |
| | 478 | 9912 | Chase Rd. | 183 | 194 | 0.94 | 71 | 97 | 0.73 | 112 | 97 | 1.15 |
| | 480 | 9911 | Spokane St. | 43 | 121 | 0.36 | 9 | 53 | 0.17 | 34 | 68 | 0.50 |
| | 482 | 509 | Idaho Rd. | 218 | 173 | 1.26 | 76 | 89 | 0.85 | 142 | 84 | 1.69 |
| | 486 | 9917 | Greensferry Rd. | 337 | 193 | 1.75 | 208 | 118 | 1.76 | 129 | 75 | 1.72 |
| | 488 | 9918 | SR 41 | 1671 | 1143 | 1.46 | 840 | 696 | 1.21 | 831 | 447 | 1.86 |
| | 491 | 522 | Huetter Rd | 511 | 229 | 2.23 | 308 | 104 | 2.96 | 203 | 125 | 1.62 |
| | 496 | 9061 | Atlas Rd | 263 | 629 | 0.42 | 111 | 363 | 0.31 | 152 | 266 | 0.57 |
| | 498 | 524 | Ramsey Rd | 521 | 1007 | 0.52 | 303 | 640 | 0.47 | 218 | 367 | 0.59 |
| | 500 | 510 | US 95 | 2880 | 2034 | 1.42 | 1568 | 1402 | 1.12 | 1312 | 632 | 2.08 |
| | 502 | 511 | Government Way | 580 | 737 | 0.79 | 324 | 455 | 0.71 | 256 | 282 | 0.91 |
| | 504 | 512 | 4th St | 297 | 643 | 0.46 | 172 | 413 | 0.42 | 125 | 230 | 0.54 |
| | 9878 | 513 | 15th St | 198 | 205 | 0.97 | 117 | 166 | 0.70 | 81 | 39 | 2.08 |
| | | | TOTAL | 7976 | 7378 | 1.08 | 4252 | 4640 | 0.92 | 3724 | 2738 | 1.36 |

| SCREENLINE NUMBER: | #8 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Hayden Ave. Screenline # 8 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 386 | 445 | Hauser Lake Rd north of SH 53 | 213 | 151 | 1.41 | 146 | 124 | 1.18 | 67 | 27 | 2.48 |
| | 411 | 1162 | Chase Rd | 101 | 100 | 1.01 | 29 | 50 | 0.58 | 72 | 50 | 1.44 |
| | 412 | 1163 | Idaho St | 55 | 86 | 0.64 | 12 | 49 | 0.24 | 43 | 37 | 1.16 |
| | 415 | 447 | SR 41 | 1655 | 1032 | 1.60 | 881 | 665 | 1.32 | 774 | 367 | 2.11 |
| | 413 | 446 | Greensferry Rd | 49 | 105 | 0.47 | 13 | 65 | 0.20 | 36 | 40 | 0.90 |
| | 418 | 435 | Huetter Rd | 272 | 100 | 2.72 | 145 | 54 | 2.69 | 127 | 46 | 2.76 |
| | | | TOTAL | 2345 | 1574 | 1.49 | 1226 | 1007 | 1.22 | 1119 | 567 | 1.97 |

| SCREENLINE NUMBER: | #9 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Lancaster Rd. Screenline # 9 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 330 | 1144 | Greensferry Rd | 35 | 94 | 0.37 | 0 | 57 | 0.00 | 35 | 37 | 0.95 |
| | 332 | 352 | SH 41 | 1375 | 831 | 1.65 | 747 | 567 | 1.32 | 628 | 264 | 2.38 |
| | 1093 | 1156 | Meyer Rd. | 38 | 245 | 0.16 | 12 | 175 | 0.07 | 26 | 70 | 0.37 |
| | 334 | 9412 | Huetter Rd | 10 | 54 | 0.19 | 3 | 30 | 0.10 | 7 | 24 | 0.29 |
| | 338 | 9418 | US 95 | 1864 | 1523 | 1.22 | 980 | 1049 | 0.93 | 884 | 474 | 1.86 |
| | 339 | 354 | Government Way | 204 | 220 | 0.93 | 28 | 147 | 0.19 | 176 | 73 | 2.41 |
| | 344 | 351 | Rimrock Rd/Meadowwood Ln | 91 | 74 | 1.23 | 46 | 18 | 2.56 | 45 | 56 | 0.80 |
| | 341 | 348 | Strahorn Rd | 21 | 59 | 0.36 | 3 | 14 | 0.21 | 18 | 45 | 0.40 |
| | 9000 | 357 | English Point Rd | | | | 3 | 7 | 0.43 | 6 | 6 | 1.00 |
| | 9781 | 9827 | Hayden Lake Rd @ East end | 1 | 38 | 0.03 | 0 | 10 | 0.00 | 1 | 28 | 0.04 |
| | | | TOTAL | 3639 | 3138 | 1.16 | 1822 | 2074 | 0.88 | 1826 | 1077 | 1.70 |

PROJECT TITLE: **KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION**
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR)

RUN # 9b     2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

Date:     3/20/2009

File Location     W:\087219\KMPO Model\KMPO Model Run\Screenlines\

Originated by:     Tony Wang

Checked by:     Revised Template by Jin Ren

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**SCREENLINE NUMBER: #10**
**SCREENLINE LOCATION: SH 53 - US 95 Screenline # 10**

| SL Section From | To | ARTERIAL NAME | Total Model and Counts 07_Model | 07_Counts | Model/Counts | SOUTHBOUND 07_Model | 07_Counts | Model/Counts | NORTHBOUND 07_Model | 07_Counts | Model/Counts |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 263 | 265 | BNSF RR Bridge in Rathdrum | 561 | 904 | 0.62 | 291 | 338 | 0.86 | 270 | 566 | 0.48 |
| 9400 | 9331 | Atlas Rd | 12 | 41 | 0.29 | 5 | 31 | 0.16 | 7 | 10 | 0.70 |
| 1137 | 269 | Ramsey Rd | 479 | 283 | 1.69 | 241 | 178 | 1.35 | 238 | 105 | 2.27 |
| 252 | 271 | US 95 n/o SH53 | 1139 | 1226 | 0.93 | 423 | 818 | 0.52 | 716 | 408 | 1.75 |
| 271 | 300 | Govt Way e/o US95 | 180 | 88 | 2.05 | 40 | 42 | 0.95 | 140 | 46 | 3.04 |
| | | TOTAL | 2371 | 2542 | 0.93 | 1000 | 1407 | 0.71 | 1371 | 1135 | 1.21 |

**SCREENLINE NUMBER: #11**
**SCREENLINE LOCATION: Twin Lakes to Nat. Forest. Screenline # 11**

| SL Section From | To | ARTERIAL NAME | Total Model and Counts 07_Model | 07_Counts | Model/Counts | SOUTHBOUND 07_Model | 07_Counts | Model/Counts | NORTHBOUND 07_Model | 07_Counts | Model/Counts |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9776 | 239 | East Twin Lake Rd near SH 41 | 179 | 144 | 1.24 | 86 | 47 | 1.83 | 93 | 97 | 0.96 |
| 9750 | 239 | SH 41 south of Seasons Rd | 625 | 542 | 1.15 | 327 | 369 | 0.89 | 298 | 173 | 1.72 |
| 226 | 237 | Ramsey Rd south of Brunner | 30 | 95 | 0.32 | 14 | 68 | 0.21 | 16 | 27 | 0.59 |
| 230 | 1099 | Diagonal Rd south of Brunner | 32 | 54 | 0.59 | 8 | 17 | 0.47 | 24 | 37 | 0.65 |
| 231 | 9902 | US 95 south of Brunner Rd | 1554 | 982 | 1.58 | 586 | 622 | 0.94 | 968 | 360 | 2.69 |
| | | TOTAL | 2420 | 1817 | 1.33 | 1021 | 1123 | 0.91 | 1399 | 694 | 2.02 |

**SCREENLINE NUMBER: #12**
**SCREENLINE LOCATION: US 95 to SH 3 South Screenline # 12**

| SL Section From | To | ARTERIAL NAME | Total Model and Counts 07_Model | 07_Counts | Model/Counts | SOUTHBOUND 07_Model | 07_Counts | Model/Counts | NORTHBOUND 07_Model | 07_Counts | Model/Counts |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1079 | 1085 | US 95 S/O Worley | 377 | 377 | 1.00 | 202 | 202 | 1.00 | 175 | 175 | 1.00 |
| 1058 | 10098 | US 95 N/O Worley | 653 | 360 | 1.81 | 347 | 188 | 1.85 | 306 | 172 | 1.78 |
| 1073 | 10015 | Cave Bay Rd @ Rock Creek | 29 | 45 | 0.64 | 14 | 24 | 0.58 | 15 | 21 | 0.71 |
| 1061 | 1191 | SH 97 north of Harrison | 138 | 51 | 2.71 | 98 | 16 | 6.13 | 40 | 35 | 1.14 |
| 9726 | 9364 | Ogara Rd west of SH 97 | 8 | 83 | 0.10 | 7 | 42 | 0.17 | 1 | 41 | 0.02 |
| 1077 | 1078 | SH 97 north of SH 3 | 33 | 44 | 0.75 | 12 | 27 | 0.44 | 21 | 17 | 1.24 |
| 1081 | 1083 | SH 3 @ Benewah Co. Line | 204 | 206 | 0.99 | 130 | 131 | 0.99 | 74 | 75 | 0.99 |
| | | TOTAL | 1442 | 1166 | 1.24 | 810 | 630 | 1.29 | 632 | 536 | 1.18 |

**SCREENLINE NUMBER: #13**
**SCREENLINE LOCATION: SH 93 to LaTour Creek Rd Screenline # 13**

| SL Section From | To | ARTERIAL NAME | Total Model and Counts 07_Model | 07_Counts | Model/Counts | SOUTHBOUND 07_Model | 07_Counts | Model/Counts | NORTHBOUND 07_Model | 07_Counts | Model/Counts |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 914 | 940 | UpRiver Dr west of US 95 | 141 | 133 | 1.06 | 103 | 27 | 3.81 | 38 | 106 | 0.36 |
| 969 | 9457 | Cougar Gulch Rd west of US 95 | 30 | 141 | 0.21 | 13 | 110 | 0.12 | 17 | 31 | 0.55 |
| 1017 | 9437 | Burma Rd S/O Gozzer Rd | 243 | 36 | 6.75 | 150 | 10 | 15.00 | 93 | 26 | 3.58 |
| 9436 | 1017 | SH 97 N/O Burma | 342 | 239 | 1.43 | 194 | 166 | 1.17 | 148 | 73 | 2.03 |
| 1045 | 1057 | LaTour Creek Rd south of I 90 | 0 | 21 | 0.00 | 0 | 5 | 0.00 | 0 | 16 | 0.00 |
| 1030 | 1034 | SH 3 S/O I 90 | 258 | 141 | 1.83 | 157 | 50 | 3.14 | 101 | 91 | 1.11 |
| | | TOTAL | 1014 | 711 | 1.43 | 617 | 368 | 1.68 | 397 | 343 | 1.16 |

**SCREENLINE NUMBER: #14**
**SCREENLINE LOCATION: Spirit Lake Pend'O Reille Screenline #14**

| SL Section From | To | ARTERIAL NAME | Total Model and Counts 07_Model | 07_Counts | Model/Counts | SOUTHBOUND 07_Model | 07_Counts | Model/Counts | NORTHBOUND 07_Model | 07_Counts | Model/Counts |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 201 | 9857 | US 95 north of Athol | 572 | 573 | 1.00 | 297 | 298 | 1.00 | 275 | 275 | 1.00 |
| 10003 | 198 | SH 41 north of Spirit Lake | 368 | 369 | 1.00 | 236 | 236 | 1.00 | 132 | 133 | 0.99 |
| 204 | 213 | SH 41 south of Spirit Lake | 568 | 514 | 1.11 | 300 | 337 | 0.89 | 268 | 177 | 1.51 |
| 202 | 212 | Perimeter Rd north of SH 54 | 28 | 23 | 1.22 | 20 | 17 | 1.18 | 8 | 6 | 1.33 |
| | | TOTAL | 1536 | 1479 | 1.04 | 853 | 888 | 0.96 | 683 | 591 | 1.16 |

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR)

RUN # 9b   2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

Date: 3/20/2009

File Location: W:\087219\KMPO Model\KMPO Model Run\Screenlines\

Originated by: Tony Wang

Checked by: Revised Template by Jin Ren

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**SCREENLINE NUMBER: #15**
**SCREENLINE LOCATION: Pleasant View Rd. Screenline # 15**

| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9945 | 471 | SH 53 (W/O Prairie Ave) | 630 | 785 | 0.80 | 170 | 262 | 0.65 | 460 | 523 | 0.88 |
| | 647 | 648 | Seltice Way | 334 | 446 | 0.75 | 107 | 218 | 0.49 | 227 | 228 | 1.00 |
| | 544 | 10146 | Poleline Ave. | 51 | 42 | 1.21 | 15 | 10 | 1.50 | 36 | 32 | 1.13 |
| | 473 | 9019 | Prairie Rd. | 177 | 217 | 0.82 | 49 | 92 | 0.53 | 128 | 125 | 1.02 |
| | 440 | 401 | SH 53 | 824 | 804 | 1.02 | 289 | 345 | 0.84 | 535 | 459 | 1.17 |
| | 9222 | 9226 | Riverbend Ave | 114 | 110 | 1.04 | 29 | 39 | 0.74 | 85 | 71 | 1.20 |
| | | | TOTAL | 2130 | 2404 | 0.89 | 659 | 966 | 0.68 | 1471 | 1438 | 1.02 |

**SCREENLINE NUMBER: #16**
**SCREENLINE LOCATION: McGuire Rd. Screenline # 16**

| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 651 | 652 | Seltice Way | 571 | 684 | 0.83 | 299 | 382 | 0.78 | 272 | 302 | 0.90 |
| | 547 | 9672 | Poleline Ave. | 107 | 78 | 1.37 | 42 | 41 | 1.02 | 65 | 37 | 1.76 |
| | 476 | 9907 | Prairie Rd. | 225 | 224 | 1.00 | 84 | 113 | 0.74 | 141 | 111 | 1.27 |
| | 401 | 366 | SH 53 | 1034 | 811 | 1.27 | 398 | 290 | 1.37 | 636 | 521 | 1.22 |
| | | | TOTAL | 1937 | 1797 | 1.08 | 823 | 826 | 1.00 | 1114 | 971 | 1.15 |

**SCREENLINE NUMBER: #17**
**SCREENLINE LOCATION: Chase Rd. Screenline # 17**

| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9439 | 9004 | Seltice Way | 759 | 896 | 0.85 | 462 | 516 | 0.90 | 297 | 380 | 0.78 |
| | 550 | 551 | Poleline Ave. | 184 | 174 | 1.06 | 88 | 92 | 0.96 | 96 | 82 | 1.17 |
| | 478 | 479 | Prairie Rd. | 245 | 266 | 0.92 | 98 | 154 | 0.64 | 147 | 112 | 1.31 |
| | 411 | 1148 | Hayden Rd. | 373 | 189 | 1.97 | 174 | 95 | 1.83 | 199 | 94 | 2.12 |
| | | | TOTAL | 1561 | 1525 | 1.02 | 822 | 857 | 0.96 | 739 | 668 | 1.11 |

**SCREENLINE NUMBER: #18**
**SCREENLINE LOCATION: Spokane St. Screenline # 18**

| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 753 | 721 | 4th St. | 227 | 182 | 1.25 | 128 | 113 | 1.13 | 99 | 69 | 1.43 |
| | 765 | 9930 | 3rd St | 46 | 289 | 0.16 | 16 | 117 | 0.14 | 30 | 172 | 0.17 |
| | 9004 | 680 | Seltice Way | 878 | 879 | 1.00 | 466 | 454 | 1.03 | 412 | 425 | 0.97 |
| | 552 | 553 | Poleline Ave. | 428 | 439 | 0.97 | 269 | 235 | 1.14 | 159 | 204 | 0.78 |
| | 480 | 481 | Prairie Rd. | 300 | 345 | 0.87 | 139 | 201 | 0.69 | 161 | 144 | 1.12 |
| | | | TOTAL | 1879 | 2134 | 0.88 | 1018 | 1120 | 0.91 | 861 | 1014 | 0.85 |

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts  (AM PEAK HOUR)

RUN # 9b     2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

Date:      3/20/2009

File Location:   W:\087219\KMPO Model\KMPO Model Run\Screenlines\

Originated by:    Tony Wang

Checked by:    Revised Template by Jin Ren

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| SCREENLINE NUMBER: | #19 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Idaho St. Screenline # 19 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 724 | 725 | 4th St. | 146 | 69 | 2.12 | 128 | 55 | 2.33 | 18 | 14 | 1.29 |
| | 682 | 709 | Seltice Way | 1651 | 1046 | 1.58 | 940 | 623 | 1.51 | 711 | 423 | 1.68 |
| | 554 | 555 | Poleline | 380 | 501 | 0.76 | 173 | 286 | 0.60 | 207 | 215 | 0.96 |
| | 482 | 483 | Prairie Rd. | 415 | 392 | 1.06 | 215 | 226 | 0.95 | 200 | 166 | 1.20 |
| | | | TOTAL | 2592 | 2008 | 1.29 | 1456 | 1190 | 1.22 | 1136 | 818 | 1.39 |
| SCREENLINE NUMBER: | #20 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Greensferrry Rd. Screenline # 20 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9929 | 771 | 3rd St. | 136 | 172 | 0.79 | 75 | 89 | 0.84 | 61 | 83 | 0.73 |
| | 728 | 730 | Seltice Way | 537 | 807 | 0.67 | 301 | 405 | 0.74 | 236 | 402 | 0.59 |
| | 664 | 665 | Mullan Ave | 351 | 526 | 0.67 | 197 | 260 | 0.76 | 154 | 266 | 0.58 |
| | 635 | 636 | 12th | 188 | 105 | 1.79 | 169 | 55 | 3.07 | 19 | 50 | 0.38 |
| | 606 | 607 | 16th | 131 | 144 | 0.91 | 80 | 70 | 1.14 | 51 | 74 | 0.69 |
| | 558 | 559 | Poleline Ave. | 391 | 644 | 0.61 | 191 | 454 | 0.42 | 200 | 190 | 1.05 |
| | 486 | 487 | Prairie Rd. | 681 | 404 | 1.69 | 297 | 237 | 1.25 | 384 | 167 | 2.30 |
| | 413 | 414 | Hayden Rd. | 395 | 235 | 1.68 | 174 | 124 | 1.40 | 221 | 111 | 1.99 |
| | 1101 | 1154 | Wyoming Ave | 0 | 44 | 0.00 | 0 | 17 | 0.00 | 0 | 27 | 0.00 |
| | 309 | 9029 | SH 53 | 987 | 819 | 1.21 | 492 | 277 | 1.78 | 495 | 542 | 0.91 |
| | | | TOTAL | 3797 | 3900 | 0.97 | 1976 | 1988 | 0.99 | 1821 | 1912 | 0.95 |
| SCREENLINE NUMBER: | #21 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | SH 41 Screenline # 21 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9382 | 734 | Seltice Way | 820 | 1191 | 0.69 | 763 | 774 | 0.99 | 57 | 417 | 0.14 |
| | 9791 | 9382 | Seltice Way (Duplicate - new count) | 1004 | 1164 | 0.86 | 748 | 836 | 0.89 | 256 | 328 | 0.78 |
| | 668 | 669 | Mullan Ave | 536 | 654 | 0.82 | 367 | 331 | 1.11 | 169 | 323 | 0.52 |
| | 561 | 562 | Poleline Rd. | 546 | 485 | 1.13 | 258 | 239 | 1.08 | 288 | 246 | 1.17 |
| | 10057 | 488 | Prairie Rd. | 692 | 384 | 1.80 | 304 | 219 | 1.39 | 388 | 165 | 2.35 |
| | 10138 | 415 | Hayden Rd. | 397 | 236 | 1.68 | 175 | 123 | 1.42 | 222 | 113 | 1.96 |
| | 9037 | 1094 | Wyoming | 0 | 115 | 0.00 | 0 | 62 | 0.00 | 0 | 53 | 0.00 |
| | 1151 | 332 | Lancaster | 6 | 14 | 0.43 | 0 | 6 | 0.00 | 6 | 8 | 0.75 |
| | 324 | 323 | Nagel Ln | 59 | 202 | 0.29 | 7 | 98 | 0.07 | 52 | 104 | 0.50 |
| | 287 | 293 | McCarney St N/O SR41 | 11 | 88 | 0.13 | 5 | 50 | 0.10 | 6 | 38 | 0.16 |
| | 9305 | 281 | Stevens St | 87 | 130 | 0.67 | 22 | 83 | 0.27 | 65 | 47 | 1.38 |
| | 9306 | 9309 | Washington St | 0 | 157 | 0.00 | 0 | 35 | 0.00 | 0 | 122 | 0.00 |
| | 9295 | 310 | Boekel Rd | 93 | 45 | 2.07 | 63 | 31 | 2.03 | 30 | 14 | 2.14 |
| | | | TOTAL | 4251 | 4865 | 0.87 | 2712 | 2887 | 0.94 | 1539 | 1978 | 0.78 |

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR)

RUN # 9b    2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

Date:    3/20/2009

File Location    W:\087219\KMPO Model\KMPO Model Run\Screenlines\

Originated by:    Tony Wang

Checked by:    Revised Template by Jin Ren

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| SCREENLINE NUMBER: | #22 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | Huetter Rd Screenline # 22 | | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9766 | 9946 | Maplewood | 28 | 79 | 0.35 | 0 | 45 | 0.00 | 28 | 34 | 0.82 |
| | 793 | 794 | Seltice Way | 617 | 885 | 0.70 | 579 | 503 | 1.15 | 38 | 382 | 0.10 |
| | 9043 | 685 | Mullan Ave | 94 | 75 | 1.25 | 56 | 53 | 1.06 | 38 | 22 | 1.73 |
| | 494 | 491 | Prairie Rd. | 653 | 746 | 0.88 | 335 | 438 | 0.76 | 318 | 308 | 1.03 |
| | 1160 | 367 | Wyoming Ave | 0 | 3 | 0.00 | 0 | 2 | 0.00 | 0 | 1 | 0.00 |
| | 1158 | 334 | Lancaster Ave | 188 | 30 | 6.27 | 93 | 15 | 6.20 | 95 | 15 | 6.33 |
| | 417 | 418 | Hayden Rd. | 1251 | 536 | 2.33 | 608 | 306 | 1.99 | 643 | 230 | 2.80 |
| | 10036 | 1096 | Boekel Ave | 127 | 158 | 0.80 | 81 | 88 | 0.92 | 46 | 70 | 0.66 |
| | | | TOTAL | 2958 | 2512 | 1.18 | 1752 | 1450 | 1.21 | 1206 | 1062 | 1.14 |

| SCREENLINE NUMBER: | #23 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | Ramsey Rd Screenline # 23 | | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 857 | 9734 | Ironwood Dr | 829 | 803 | 1.03 | 500 | 577 | 0.87 | 329 | 226 | 1.46 |
| | 813 | 9097 | Appleway | 196 | 669 | 0.29 | 114 | 336 | 0.34 | 82 | 333 | 0.25 |
| | 689 | 9087 | Kathleen Ave | 755 | 1141 | 0.66 | 451 | 665 | 0.68 | 304 | 476 | 0.64 |
| | 613 | 9083 | Dalton Ave | 180 | 344 | 0.52 | 70 | 182 | 0.38 | 110 | 162 | 0.68 |
| | 569 | 9100 | Hanley Ave | 711 | 517 | 1.38 | 439 | 263 | 1.67 | 272 | 254 | 1.07 |
| | 524 | 10117 | Wilbur Ave Pinegrove | 82 | 144 | 0.57 | 51 | 73 | 0.70 | 31 | 71 | 0.44 |
| | 498 | 9050 | Prairie Ave | 890 | 934 | 0.95 | 491 | 552 | 0.89 | 399 | 382 | 1.04 |
| | 450 | 451 | Honeysuckle Ave | 61 | 176 | 0.35 | 33 | 99 | 0.33 | 28 | 77 | 0.36 |
| | 422 | 423 | Hayden Ave | 767 | 569 | 1.35 | 314 | 278 | 1.13 | 453 | 291 | 1.56 |
| | 387 | 388 | Miles Ave | 13 | 67 | 0.19 | 1 | 21 | 0.05 | 12 | 46 | 0.26 |
| | 368 | 369 | Wyoming Ave | 168 | 178 | 0.94 | 123 | 82 | 1.50 | 45 | 96 | 0.47 |
| | 336 | 337 | Lancaster Ave | 228 | 84 | 2.71 | 121 | 49 | 2.47 | 107 | 35 | 3.06 |
| | 9032 | 10072 | Boekel Rd | 737 | 158 | 4.66 | 400 | 105 | 3.81 | 337 | 53 | 6.36 |
| | 269 | 270 | Hwy 53 | 661 | 565 | 1.17 | 371 | 334 | 1.11 | 290 | 231 | 1.26 |
| | 251 | 1140 | Garwood Rd | 3 | 155 | 0.02 | 1 | 97 | 0.01 | 2 | 58 | 0.03 |
| | 245 | 1139 | Ohio Match Rd | 26 | 33 | 0.79 | 20 | 12 | 1.67 | 6 | 21 | 0.29 |
| | | | TOTAL | 6307 | 6537 | 0.96 | 3500 | 3725 | 0.94 | 2807 | 2812 | 1.00 |

**PROJECT TITLE:** KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
**SCENARIO TITLE:** 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR)

**RUN # 9b** 2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

**Date:** 3/20/2009

**File Location** W:\087219\KMPO Model\KMPO Model Run\Screenlines\

**Originated by:** Tony Wang
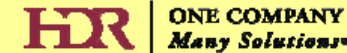
**Checked by:** Revised Template by Jin Ren

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**SCREENLINE NUMBER:** #24
**SCREENLINE LOCATION:** US 95 Screenline # 24

| SL Section | Corresponding Links: SB/EB to NB/WB | | ARTERIAL NAME | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 892 | 9129 | Walnut St | 265 | 185 | 1.43 | 77 | 111 | 0.69 | 188 | 74 | 2.54 |
| | 9895 | 891 | US 95 | 895 | 711 | 1.26 | 492 | 372 | 1.32 | 403 | 339 | 1.19 |
| | 9903 | 9821 | Old US 95 n/o SH53 | 618 | 260 | 2.38 | 264 | 175 | 1.51 | 354 | 85 | 4.16 |
| | 896 | 1173 | Northwwest Blvd | 1489 | 1620 | 0.92 | 1026 | 1271 | 0.81 | 463 | 349 | 1.33 |
| | 868 | 1172 | Ironwood Blvd | 672 | 530 | 1.27 | 266 | 271 | 0.98 | 406 | 259 | 1.57 |
| | 831 | 832 | Appleway Ave | 428 | 817 | 0.52 | 235 | 440 | 0.53 | 193 | 377 | 0.51 |
| | 761 | 762 | Neider Ave | 750 | 446 | 1.68 | 350 | 259 | 1.35 | 400 | 187 | 2.14 |
| | 691 | 692 | Kathleen Ave | 254 | 695 | 0.37 | 150 | 340 | 0.44 | 104 | 355 | 0.29 |
| | 615 | 616 | Dalton Ave | 585 | 489 | 1.20 | 231 | 295 | 0.78 | 354 | 194 | 1.82 |
| | 571 | 9054 | Hanley Ave | 636 | 531 | 1.20 | 368 | 281 | 1.31 | 268 | 250 | 1.07 |
| | 500 | 501 | Prairie Ave | 698 | 622 | 1.12 | 349 | 345 | 1.01 | 349 | 277 | 1.26 |
| | 454 | 455 | Honeysuckle Ave | 622 | 461 | 1.35 | 360 | 221 | 1.63 | 262 | 240 | 1.09 |
| | 426 | 427 | Hayden Ave | 217 | 595 | 0.36 | 108 | 250 | 0.43 | 109 | 345 | 0.32 |
| | 9982 | 392 | Miles Ave | 249 | 236 | 1.06 | 89 | 139 | 0.64 | 160 | 97 | 1.65 |
| | 9983 | 373 | Wyoming Ave | 351 | 156 | 2.25 | 62 | 68 | 0.91 | 289 | 88 | 3.28 |
| | 338 | 339 | Lancaster Ave | 341 | 108 | 3.16 | 56 | 66 | 0.85 | 285 | 42 | 6.79 |
| | 252 | 253 | Garwood Rd | 114 | 199 | 0.57 | 34 | 52 | 0.65 | 80 | 147 | 0.54 |
| | 246 | 247 | Ohio Match Rd | 27 | 58 | 0.47 | 14 | 15 | 0.93 | 13 | 43 | 0.30 |
| | | | TOTAL | 9211 | 8719 | 1.06 | 4531 | 4971 | 0.91 | 4680 | 3748 | 1.25 |

**SCREENLINE NUMBER:** #25
**SCREENLINE LOCATION:** West Side KMPO Screenline # 25

| SL Section | Corresponding Links: SB/EB to NB/WB | | ARTERIAL NAME | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9015 | 717 | Seltice Way W/O Beck Rd | 344 | 327 | 1.05 | 141 | 136 | 1.04 | 203 | 191 | 1.06 |
| | 1049 | 9355 | Elder Rd @ Washington Line | 0 | 51 | 0.00 | 0 | 24 | 0.00 | 0 | 27 | 0.00 |
| | 1068 | 9362 | SH 58 @ Washington Line | 135 | 136 | 0.99 | 78 | 79 | 0.99 | 57 | 57 | 1.00 |
| | 1062 | 9354 | Bitter Rd east of US 95 | 0 | 7 | 0.00 | 0 | 3 | 0.00 | 0 | 4 | 0.00 |
| | 514 | 9945 | SH 53 @ Washington State Line | 630 | 630 | 1.00 | 170 | 171 | 0.99 | 460 | 459 | 1.00 |
| | 1046 | 9177 | Rockford Bay Rd east of US 95 | 79 | 127 | 0.62 | 40 | 88 | 0.45 | 39 | 39 | 1.00 |
| | 1079 | 9783 | Conkling Rd east of US 95 | 18 | 23 | 0.78 | 6 | 8 | 0.75 | 12 | 15 | 0.80 |
| | | | TOTAL | 1206 | 1301 | 0.93 | 435 | 509 | 0.85 | 771 | 792 | 0.97 |

**SCREENLINE NUMBER:** #26
**SCREENLINE LOCATION:** East Side KMPO Screenline # 26

| SL Section | Corresponding Links: SB/EB to NB/WB | | ARTERIAL NAME | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 1040 | 1042 | I 90 @ Shoshone Co. Line | 680 | 679 | 1.00 | 401 | 400 | 1.00 | 279 | 279 | 1.00 |
| | 949 | 9965 | Fernan Lake Rd @ CdA City Limit | 74 | 21 | 3.52 | 32 | 11 | 2.91 | 42 | 10 | 4.20 |
| | 980 | 976 | Mullan Trail Rd north of I 90 | 229 | 115 | 1.99 | 88 | 23 | 3.83 | 141 | 92 | 1.53 |
| | 990 | 987 | Sunnyside Rd south of Mullan Trail | 20 | 35 | 0.57 | 6 | 10 | 0.60 | 14 | 25 | 0.56 |
| | 344 | 345 | Lancaster Rd east of Rimrock | 232 | 102 | 2.27 | 60 | 49 | 1.22 | 172 | 53 | 3.25 |
| | 249 | 250 | Ohio Match Rd East of Rimrock Rd | 0 | 23 | 0.00 | 0 | 14 | 0.00 | 0 | 9 | 0.00 |
| | 232 | 233 | Bunco Rd @ Nunn Rd | 215 | 24 | 8.96 | 164 | 4 | 41.00 | 51 | 20 | 2.55 |
| | 9999 | 200 | SH 54 West of Farragut Park Entrance | 181 | 176 | 1.03 | 109 | 78 | 1.40 | 72 | 98 | 0.73 |
| | | | TOTAL | 1631 | 1175 | 1.39 | 860 | 589 | 1.46 | 771 | 586 | 1.32 |

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (AM PEAK HOUR)

RUN # 9b    2007 NEW LU, Roundabouts, UPDATED EXTERNAL COUNTS, I-X, X-I AND X-X, Trip Rates, Trip Distribution and No Node Delay

Date:    3/20/2009

File Location:    W:\087219\KMPO Model\KMPO Model Run\Screenlines\

Originated by:    Tony Wang

Checked by:    Revised Template by Jin Ren

| SCREENLINE NUMBER: | #27 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Government Way Screenline # 27 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9733 | 944 | Government Way | 334 | 196 | 1.70 | 199 | 110 | 1.81 | 135 | 86 | 1.57 |
| | 944 | 951 | N/O Sherman Ave | 842 | 762 | 1.10 | 478 | 426 | 1.12 | 364 | 336 | 1.08 |
| | 9825 | 931 | Foster Ave | 389 | 118 | 3.30 | 226 | 46 | 4.91 | 163 | 72 | 2.26 |
| | 9812 | 900 | Harrison Ave | 182 | 426 | 0.43 | 61 | 188 | 0.32 | 121 | 238 | 0.51 |
| | 833 | 834 | Appleway/Best Ave | 829 | 808 | 1.03 | 250 | 385 | 0.65 | 579 | 423 | 1.37 |
| | 777 | 779 | Neider Ave | 635 | 372 | 1.71 | 251 | 151 | 1.66 | 384 | 221 | 1.74 |
| | 10159 | 694 | Margaret Ave | 439 | 595 | 0.74 | 153 | 222 | 0.69 | 286 | 373 | 0.77 |
| | 617 | 618 | Dalton Ave | 372 | 553 | 0.67 | 175 | 305 | 0.57 | 197 | 248 | 0.79 |
| | 573 | 574 | Hanley Ave | 108 | 300 | 0.36 | 60 | 112 | 0.54 | 48 | 188 | 0.26 |
| | 527 | 528 | Wilbur Ave | 129 | 71 | 1.82 | 73 | 30 | 2.43 | 56 | 41 | 1.37 |
| | 502 | 503 | Prairie Ave | 607 | 603 | 1.01 | 199 | 163 | 1.22 | 408 | 440 | 0.93 |
| | 456 | 457 | Honeysuckle Ave | 370 | 287 | 1.29 | 148 | 104 | 1.42 | 222 | 183 | 1.21 |
| | 428 | 429 | Hayden Ave | 165 | 360 | 0.46 | 65 | 127 | 0.51 | 100 | 233 | 0.43 |
| | 393 | 394 | Miles Ave | 225 | 168 | 1.34 | 70 | 58 | 1.21 | 155 | 110 | 1.41 |
| | 374 | 9044 | Wyoming Ave | 200 | 58 | 3.45 | 1 | 14 | 0.07 | 199 | 44 | 4.52 |
| | 339 | 340 | Lancaster Ave | 333 | 211 | 1.58 | 79 | 77 | 1.03 | 254 | 134 | 1.90 |
| | | | TOTAL | 6159 | 5888 | 1.05 | 2488 | 2518 | 0.99 | 3671 | 3370 | 1.09 |
| SCREENLINE NUMBER: | #28 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | I 90 Ramps Screenline # 28 | | | | | | | | | | |
| SL Section | Corresponding Links: SB/EB to NB/WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 752 | 719 | SR 90 @ Pleasant View Rd On | 887 | 622 | 1.43 | 380 | 300 | 1.27 | 507 | 322 | 1.57 |
| | 751 | 752 | SR 90 @ Pleasant View Rd Off | 1062 | 577 | 1.84 | 374 | 274 | 1.36 | 688 | 303 | 2.27 |
| | 703 | 704 | I 90 Ramp @ Spokane St On | 590 | 1062 | 0.56 | 177 | 448 | 0.40 | 413 | 614 | 0.67 |
| | 701 | 703 | I 90 Ramp @ Spokane St Off | 351 | 491 | 0.71 | 218 | 268 | 0.81 | 133 | 223 | 0.60 |
| | 726 | 712 | I 90 Ramp @ Seltice Way EB On/WB-Off | 1508 | 572 | 2.64 | 956 | 347 | 2.76 | 552 | 225 | 2.45 |
| | 9709 | 736 | I 90 Ramp @ SH 41 On | 1226 | 1162 | 1.06 | 659 | 563 | 1.17 | 567 | 599 | 0.95 |
| | 732 | 731 | I 90 Ramp @ SH 41 Off | 1007 | 704 | 1.43 | 418 | 391 | 1.07 | 589 | 313 | 1.88 |
| | 843 | 844 | I 90 Ramp @ NW Blvd/Ramsey On | 1220 | 841 | 1.45 | 189 | 293 | 0.65 | 1031 | 548 | 1.88 |
| | 826 | 843 | I 90 Ramp @ NW Blvd/Ramsey Off | 1282 | 1377 | 0.93 | 1119 | 957 | 1.17 | 163 | 420 | 0.39 |
| | 859 | 849 | I 90 Ramp @ US 95 On | 886 | 600 | 1.48 | 357 | 186 | 1.92 | 529 | 414 | 1.28 |
| | 847 | 859 | I 90 Ramp @ US 95 Off | 912 | 927 | 0.98 | 464 | 623 | 0.74 | 448 | 304 | 1.47 |
| | 861 | 862 | I 90 Ramp @ 3rd/4th St On | 586 | 563 | 1.04 | 97 | 129 | 0.75 | 489 | 434 | 1.13 |
| | 860 | 9788 | I 90 Ramp @ 3rd/4th St Off | 702 | 693 | 1.01 | 524 | 500 | 1.05 | 178 | 193 | 0.92 |
| | 9795 | 912 | I 90 Ramp @ 15th St On | 510 | 601 | 0.85 | 136 | 65 | 2.09 | 374 | 536 | 0.70 |
| | 885 | 9796 | I 90 Ramp @ 15th St Off | 353 | 285 | 1.24 | 285 | 232 | 1.23 | 68 | 53 | 1.28 |
| | 9011 | 968 | I 90 Ramp @ 23rd St On | 524 | 334 | 1.57 | 78 | 70 | 1.11 | 446 | 264 | 1.69 |
| | 947 | 9948 | I 90 Ramp @ 23rd St Off | 236 | 310 | 0.76 | 167 | 230 | 0.73 | 69 | 80 | 0.86 |
| | | | TOTAL | 13842 | 11721 | 1.18 | 6598 | 5876 | 1.12 | 7244 | 5845 | 1.24 |
| | | | Overall | 116979 | 110988 | 1.05 | 60325 | 62082 | 0.97 | 56663 | 48919 | 1.16 |

# Appendix 1H: 2007 KMPO Model PM Peak Hour Screenline Validation Spreadsheets

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

RUN # 9b  2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

Date: 3/20/2009

File Location: C:\Documents and Settings\jren\My Documents\

Originated by: Tony Wang

Checked by: Revised Template by Jin Ren

*Kootenai MPO*

HDR | ONE
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**SCREENLINE NUMBER: #1**
**SCREENLINE LOCATION: Spokane River Crossing Screenline #1**

| SL Section | Corresponding Links: NB and SB | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 818 | 842 | Spokane St. | 460 | 628 | 0.73 | 148 | 377 | 0.39 | 312 | 251 | 1.24 |
| 889 | 9963 | US 95 @ Spokane River Bridge | 1463 | 1218 | 1.20 | 857 | 612 | 1.40 | 606 | 606 | 1.00 |
| | | TOTAL | 1923 | 1846 | 1.04 | 1005 | 989 | 1.02 | 918 | 857 | 1.07 |

**SCREENLINE NUMBER: #2**
**SCREENLINE LOCATION: Seltice Screenline #2**

| SL Section | Corresponding Links: NB and SB | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 774 | 9814 | Huetter Rd | 607 | 311 | 1.95 | 166 | 115 | 1.44 | 441 | 196 | 2.25 |
| 9388 | 9815 | Altas Rd | 298 | 697 | 0.43 | 68 | 312 | 0.22 | 230 | 385 | 0.60 |
| 843 | 9789 | Ramsey Rd | 2922 | 1752 | 1.67 | 1263 | 705 | 1.79 | 1659 | 1047 | 1.58 |
| 734 | 9272 | Ross Point Rd | 314 | 728 | 0.43 | 172 | 387 | 0.44 | 142 | 341 | 0.42 |
| 755 | 790 | Cedar St | 420 | 330 | 1.27 | 67 | 211 | 0.32 | 353 | 119 | 2.97 |
| 9960 | 9884 | Seeley Rd | 497 | 90 | 5.52 | 468 | 46 | 10.17 | 29 | 44 | 0.66 |
| | | TOTAL | 5058 | 3908 | 1.29 | 2204 | 1776 | 1.24 | 2854 | 2132 | 1.34 |

**SCREENLINE NUMBER: #3**
**SCREENLINE LOCATION: Harrison Ave. Screenline #3**

| SL Section | Corresponding Links: NB and SB | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 899 | 9144 | Government Way | 693 | 730 | 0.95 | 339 | 349 | 0.97 | 354 | 381 | 0.93 |
| 901 | 917 | 3rd St | 998 | 1385 | 0.72 | 283 | 563 | 0.50 | 715 | 822 | 0.87 |
| 904 | 919 | 7th St | 131 | 333 | 0.39 | 83 | 155 | 0.54 | 48 | 178 | 0.27 |
| 907 | 920 | 11th St | 297 | 176 | 1.69 | 140 | 85 | 1.65 | 157 | 91 | 1.73 |
| 910 | 921 | 15th St | 763 | 1211 | 0.63 | 453 | 744 | 0.61 | 310 | 467 | 0.66 |
| | | TOTAL | 2882 | 3835 | 0.75 | 1298 | 1896 | 0.68 | 1584 | 1939 | 0.82 |

**SCREENLINE NUMBER: #4**
**SCREENLINE LOCATION: Appleway Ave/Best Screenline #4**

| SL Section | Corresponding Links: NB and SB | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| 831 | 9424 | Southbound | 2917 | 2579 | 1.13 | 1516 | 1379 | 1.10 | 1401 | 1200 | 1.17 |
| 833 | 851 | SR 95 | 1794 | 1561 | 1.15 | 773 | 664 | 1.16 | 1021 | 897 | 1.14 |
| 841 | 866 | Government Way | 474 | 887 | 0.53 | 222 | 439 | 0.51 | 252 | 448 | 0.56 |
| | | TOTAL | 5185 | 5027 | 1.03 | 2511 | 2482 | 1.01 | 2674 | 2545 | 1.05 |

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

RUN # 9b          2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

Date:            3/20/2009

File Location:   C:\Documents and Settings\jren\My Documents\

Originated by:   Tony Wang

Checked by:      Revised Template by Jin Ren

**SCREENLINE NUMBER: #5**
**SCREENLINE LOCATION: Seltice/Mullan Rd/Kathleen Screenline #5**

| SL Section | Corresponding Links: NB and SB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 681 | 682 | Idaho St. | 1408 | 1568 | 0.90 | 610 | 778 | 0.78 | 798 | 790 | 1.01 |
| | 658 | 9004 | Spokane St. | 883 | 1196 | 0.74 | 298 | 496 | 0.60 | 585 | 700 | 0.84 |
| | 660 | 681 | Idaho St. | 1117 | 1465 | 0.76 | 447 | 559 | 0.80 | 670 | 906 | 0.74 |
| | 9422 | 734 | SR 41 | 1601 | 2185 | 0.73 | 783 | 1133 | 0.69 | 818 | 1052 | 0.78 |
| | 9015 | 9900 | Baugh Rd | 8 | 250 | 0.03 | 4 | 109 | 0.04 | 4 | 141 | 0.03 |
| | 9964 | 10127 | Pleasant View Rd | 1606 | 784 | 2.05 | 593 | 318 | 1.86 | 1013 | 466 | 2.17 |
| | 10160 | 9397 | Government Way | 1019 | 1603 | 0.64 | 461 | 744 | 0.62 | 558 | 859 | 0.65 |
| | 664 | 683 | Greensferry Rd | 10 | 168 | 0.06 | 5 | 50 | 0.10 | 5 | 118 | 0.04 |
| | 669 | 715 | SR 41 | 2687 | 2503 | 1.07 | 1411 | 1225 | 1.15 | 1276 | 1278 | 1.00 |
| | 685 | 738 | Huetter Rd | 606 | 299 | 2.03 | 166 | 98 | 1.69 | 440 | 201 | 2.19 |
| | 687 | 739 | Altas Rd | 155 | 695 | 0.22 | 19 | 367 | 0.05 | 136 | 328 | 0.41 |
| | 689 | 743 | Ramsey Rd | 1890 | 2631 | 0.72 | 795 | 1424 | 0.56 | 1095 | 1207 | 0.91 |
| | 691 | 9421 | US 95 | 3215 | 2830 | 1.14 | 1559 | 1434 | 1.09 | 1656 | 1396 | 1.19 |
| | 695 | 746 | 4th St | 549 | 802 | 0.68 | 216 | 332 | 0.65 | 333 | 470 | 0.71 |
| | 698 | 716 | 15th St | 611 | 796 | 0.77 | 284 | 370 | 0.77 | 327 | 426 | 0.77 |
| | | | TOTAL | 17365 | 19775 | 0.88 | 7651 | 9437 | 0.81 | 9714 | 10338 | 0.94 |

**SCREENLINE NUMBER: #6**
**SCREENLINE LOCATION: Poleline Rd Screenline #6**

| SL Section | Corresponding Links: NB and SB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 544 | 595 | Pleasant View Rd | 1433 | 494 | 2.90 | 620 | 178 | 3.48 | 813 | 316 | 2.57 |
| | 550 | 579 | Chase Rd. | 294 | 309 | 0.95 | 120 | 173 | 0.69 | 174 | 136 | 1.28 |
| | 552 | 580 | Spokane St | 86 | 598 | 0.14 | 29 | 238 | 0.12 | 57 | 360 | 0.16 |
| | 554 | 581 | Idaho St | 633 | 744 | 0.85 | 221 | 334 | 0.66 | 412 | 410 | 1.00 |
| | 558 | 583 | Greensferry Rd. | 483 | 242 | 2.00 | 382 | 113 | 3.38 | 101 | 129 | 0.78 |
| | 562 | 585 | SR41 | 2268 | 1656 | 1.37 | 911 | 704 | 1.29 | 1357 | 952 | 1.43 |
| | 1100 | 587 | Huetter Rd | 611 | 287 | 2.13 | 178 | 108 | 1.65 | 433 | 179 | 2.42 |
| | 9458 | 9063 | Atlas Rd | 1099 | 829 | 1.33 | 428 | 341 | 1.26 | 671 | 488 | 1.38 |
| | 569 | 590 | Ramsey Rd | 919 | 1497 | 0.61 | 349 | 627 | 0.56 | 570 | 870 | 0.66 |
| | 571 | 615 | US 95 | 3539 | 2823 | 1.25 | 1800 | 1338 | 1.35 | 1739 | 1485 | 1.17 |
| | 573 | 592 | Government Way | 1050 | 1484 | 0.71 | 472 | 738 | 0.64 | 578 | 746 | 0.77 |
| | 575 | 9052 | 4th St | 444 | 690 | 0.64 | 171 | 305 | 0.56 | 273 | 385 | 0.71 |
| | 577 | 594 | 15th St | 317 | 450 | 0.70 | 168 | 191 | 0.88 | 149 | 259 | 0.58 |
| | | | TOTAL | 13176 | 12103 | 1.09 | 5849 | 5388 | 1.09 | 7327 | 6715 | 1.09 |

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

RUN # 9b    2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

Date: 3/20/2009

File Location    C:\Documents and Settings\jren\My Documents\

Originated by: Tony Wang

Checked by: Revised Template by Jin Ren

Kootenai MPO

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| SCREENLINE NUMBER: | #7 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Prairie Rd. Screenline #7 | | | | | | | | | | |
| SL Section | Corresponding Links: NB and SB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 476 | 9386 | McGuire Rd | 332 | 79 | 4.20 | 163 | 53 | 3.08 | 169 | 26 | 6.50 |
| | 478 | 9912 | Chase Rd. | 203 | 230 | 0.88 | 111 | 115 | 0.97 | 92 | 115 | 0.80 |
| | 480 | 9911 | Spokane St. | 49 | 203 | 0.24 | 35 | 113 | 0.31 | 14 | 90 | 0.16 |
| | 482 | 509 | Idaho Rd. | 249 | 320 | 0.78 | 136 | 160 | 0.85 | 113 | 160 | 0.71 |
| | 486 | 9917 | Greensferry Rd. | 412 | 208 | 1.98 | 293 | 109 | 2.69 | 119 | 99 | 1.20 |
| | 488 | 9918 | SR 41 | 1869 | 1444 | 1.29 | 898 | 605 | 1.48 | 971 | 839 | 1.16 |
| | 491 | 522 | Huetter Rd | 694 | 324 | 2.14 | 249 | 186 | 1.34 | 445 | 138 | 3.22 |
| | 496 | 9061 | Atlas Rd | 336 | 657 | 0.51 | 153 | 300 | 0.51 | 183 | 357 | 0.51 |
| | 498 | 524 | Ramsey Rd | 826 | 1231 | 0.67 | 322 | 525 | 0.61 | 504 | 706 | 0.71 |
| | 500 | 510 | US 95 | 3362 | 2653 | 1.27 | 1694 | 1207 | 1.40 | 1668 | 1446 | 1.15 |
| | 502 | 511 | Government Way | 1050 | 1282 | 0.82 | 422 | 581 | 0.73 | 628 | 701 | 0.90 |
| | 504 | 512 | 4th St | 429 | 788 | 0.54 | 140 | 305 | 0.46 | 289 | 483 | 0.60 |
| | 9878 | 513 | 15th St | 245 | 196 | 1.25 | 136 | 79 | 1.72 | 109 | 117 | 0.93 |
| | | | TOTAL | 10056 | 9615 | 1.05 | 4752 | 4338 | 1.10 | 5304 | 5277 | 1.01 |
| SCREENLINE NUMBER: | #8 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Hayden Ave. Screenline # 8 | | | | | | | | | | |
| SL Section | Corresponding Links: NB and SB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 386 | 445 | Hauser Lake Rd north of SH 53 | 267 | 94 | 2.84 | 106 | 67 | 1.58 | 161 | 27 | 5.96 |
| | 411 | 1162 | Chase Rd | 99 | 126 | 0.79 | 43 | 52 | 0.83 | 56 | 74 | 0.76 |
| | 412 | 1163 | Idaho St | 58 | 140 | 0.41 | 10 | 64 | 0.16 | 48 | 76 | 0.63 |
| | 415 | 447 | SR 41 | 1767 | 1320 | 1.34 | 928 | 601 | 1.54 | 839 | 719 | 1.17 |
| | 413 | 446 | Greensferry Rd | 55 | 138 | 0.40 | 12 | 60 | 0.20 | 43 | 78 | 0.55 |
| | 418 | 435 | Huetter Rd | 436 | 144 | 3.03 | 152 | 55 | 2.76 | 284 | 89 | 3.19 |
| | | | TOTAL | 2682 | 1962 | 1.37 | 1251 | 899 | 1.39 | 1431 | 1063 | 1.35 |
| SCREENLINE NUMBER: | #9 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Lancaster Rd. Screenline # 9 | | | | | | | | | | |
| SL Section | Corresponding Links: NB and SB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 330 | 1144 | Greensferry Rd | 50 | 110 | 0.45 | 0 | 49 | 0.00 | 50 | 61 | 0.82 |
| | 332 | 352 | SH 41 | 1694 | 1056 | 1.60 | 832 | 424 | 1.96 | 862 | 632 | 1.36 |
| | 1093 | 1156 | Meyer Rd. | 62 | 289 | 0.21 | 28 | 104 | 0.27 | 34 | 185 | 0.18 |
| | 334 | 9412 | Huetter Rd | 10 | 98 | 0.10 | 6 | 35 | 0.17 | 4 | 63 | 0.06 |
| | 338 | 9418 | US 95 | 2095 | 1930 | 1.09 | 1140 | 754 | 1.51 | 955 | 1176 | 0.81 |
| | 339 | 354 | Government Way | 337 | 323 | 1.04 | 70 | 136 | 0.51 | 267 | 187 | 1.43 |
| | 344 | 351 | Rimrock Rd/Meadowwood Ln | 195 | 71 | 2.75 | 73 | 40 | 1.83 | 122 | 31 | 3.94 |
| | 341 | 348 | Strahorn Rd | 52 | 73 | 0.71 | 4 | 41 | 0.10 | 48 | 32 | 1.50 |
| | 9000 | 357 | English Point Rd | 10 | 18 | 0.56 | 6 | 8 | 1 | 4 | 10 | 0.40 |
| | 9781 | 9827 | Hayden Lake Rd @ East end | 2 | 56 | 0.04 | 1 | 18 | 0 | 1 | 38 | 0.03 |
| | | | TOTAL | 4507 | 4024 | 1.12 | 2160 | 1609 | 1.34 | 2347 | 2415 | 0.97 |

**PROJECT TITLE:** KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
**SCENARIO TITLE:** 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

**RUN # 9b** 2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

**Date:** 3/20/2009

**File Location** C:\Documents and Settings\Jren\My Documents\

**Originated by:** Tony Wang

**Checked by:** Revised Template by Jin Ren

| SCREENLINE NUMBER: | #10 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | SH 53 - US 95 Screenline # 10 | | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 263 | 265 | BNSF RR Bridge in Rathdrum | 719 | 1139 | 0.63 | 409 | 645 | 0.63 | 310 | 494 | 0.63 |
| | 9400 | 9331 | Atlas Rd | 11 | 57 | 0.19 | 6 | 22 | 0.27 | 5 | 35 | 0.14 |
| | 1137 | 269 | Ramsey Rd | 540 | 344 | 1.57 | 247 | 142 | 1.74 | 293 | 202 | 1.45 |
| | 252 | 271 | US 95 n/o SH53 | 1388 | 1567 | 0.89 | 726 | 651 | 1.12 | 662 | 916 | 0.72 |
| | 271 | 300 | Gov't Way e/o US95 | 272 | 173 | 1.57 | 99 | 44 | 2.25 | 173 | 129 | 1.34 |
| | | | TOTAL | 2930 | 3280 | 0.89 | 1487 | 1504 | 0.99 | 1443 | 1776 | 0.81 |
| SCREENLINE NUMBER: | #11 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Twin Lakes to Nat. Forest.  Screenline # 11 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9776 | 239 | East Twin Lake Rd near SH 41 | 206 | 151 | 1.36 | 104 | 101 | 1.03 | 102 | 50 | 2.04 |
| | 9750 | 239 | SH 41 south of Seasons Rd | 725 | 687 | 1.06 | 320 | 201 | 1.59 | 405 | 486 | 0.83 |
| | 226 | 237 | Ramsey Rd south of Brunner | 38 | 127 | 0.30 | 20 | 32 | 0.63 | 18 | 95 | 0.19 |
| | 230 | 1099 | Diagonal Rd south of Brunner | 45 | 47 | 0.96 | 25 | 25 | 1.00 | 20 | 22 | 0.91 |
| | 231 | 9902 | US 95 south of Brunner Rd | 1996 | 1340 | 1.49 | 1037 | 761 | 1.36 | 959 | 579 | 1.66 |
| | | | TOTAL | 3010 | 2352 | 1.28 | 1506 | 1120 | 1.34 | 1504 | 1232 | 1.22 |
| SCREENLINE NUMBER: | #12 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | US 95 to SH 3 South Screenline # 12 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 1079 | 1085 | US 95 S/O Worley | 498 | 499 | 1.00 | 250 | 251 | 1.00 | 248 | 248 | 1.00 |
| | 1058 | 10098 | US 95 N/O Worley | 297 | 468 | 0.63 | 77 | 201 | 0.38 | 220 | 267 | 0.82 |
| | 1073 | 10015 | Cave Bay Rd @ Rock Creek | 32 | 51 | 0.63 | 16 | 24 | 0.67 | 16 | 27 | 0.59 |
| | 1061 | 1191 | SH 97 north of Harrison | 158 | 57 | 2.77 | 56 | 40 | 1.40 | 102 | 17 | 6.00 |
| | 9726 | 9364 | Ogara Rd west of SH 97 | 9 | 85 | 0.11 | 4 | 27 | 0.15 | 5 | 58 | 0.09 |
| | 1077 | 1078 | SH 97 north of SH 3 | 35 | 90 | 0.39 | 18 | 38 | 0.47 | 17 | 52 | 0.33 |
| | 1081 | 1083 | SH 3 @ Benewah Co. Line | 231 | 233 | 0.99 | 107 | 108 | 0.99 | 124 | 125 | 0.99 |
| | | | TOTAL | 1260 | 1483 | 0.85 | 528 | 689 | 0.77 | 732 | 794 | 0.92 |
| SCREENLINE NUMBER: | #13 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | SH 93 to LaTour Creek Rd Screenline # 13 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 914 | 940 | UpRiver Dr west of US 95 | 326 | 153 | 2.13 | 64 | 98 | 0.65 | 262 | 55 | 4.76 |
| | 969 | 9457 | Cougar Gulch Rd west of US 95 | 37 | 149 | 0.25 | 18 | 52 | 0.35 | 19 | 97 | 0.20 |
| | 1017 | 9437 | Burma Rd S/O Gozzer Rd | 282 | 39 | 7.23 | 121 | 23 | 5.26 | 161 | 16 | 10.06 |
| | 9436 | 1017 | SH 97 N/O Burma | 404 | 278 | 1.45 | 187 | 67 | 2.79 | 217 | 211 | 1.03 |
| | 1045 | 1057 | LaTour Creek Rd south of I 90 | 0 | 23 | 0.00 | 0 | 15 | 0.00 | 0 | 8 | 0.00 |
| | 1030 | 1034 | SH 3 S/O I 90 | 287 | 192 | 1.49 | 138 | 110 | 1.25 | 149 | 82 | 1.82 |
| | | | TOTAL | 1336 | 834 | 1.60 | 528 | 365 | 1.45 | 808 | 469 | 1.72 |
| SCREENLINE NUMBER: | #14 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Spirit Lake Pend'O Reille Screenline #14 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | SOUTHBOUND | | | NORTHBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 201 | 9857 | US 95 north of Athol | 750 | 751 | 1.00 | 342 | 342 | 1.00 | 408 | 409 | 1.00 |
| | 10003 | 198 | SH 41 north of Spirit Lake | 421 | 422 | 1.00 | 154 | 154 | 1.00 | 267 | 268 | 1.00 |
| | 204 | 213 | SH 41 south of Spirit Lake | 664 | 742 | 0.89 | 286 | 265 | 1.08 | 378 | 477 | 0.79 |
| | 202 | 212 | Perimeter Rd north of SH 545 | 41 | 36 | 1.14 | 20 | 17 | 1.18 | 21 | 19 | 1.11 |
| | | | TOTAL | 1876 | 1951 | 0.96 | 802 | 778 | 1.03 | 1074 | 1173 | 0.92 |

PROJECT TITLE: KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
SCENARIO TITLE: 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

RUN # 9b  2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

Date: 3/20/2009

File Location: C:\Documents and Settings\jren\My Documents\

Originated by: Tony Wang

Checked by: Revised Template by Jin Ren

| SCREENLINE NUMBER: | #15 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Pleasant View Rd. Screenline # 15 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9945 | 471 | SH 53 (W/O Prairie Ave) | 668 | 683 | 0.98 | 380 | 317 | 1.20 | 288 | 366 | 0.79 |
| | 647 | 648 | Seltice Way | 595 | 709 | 0.84 | 428 | 346 | 1.24 | 167 | 363 | 0.46 |
| | 544 | 10146 | Poleline Ave. | 68 | 57 | 1.19 | 42 | 36 | 1.17 | 26 | 21 | 1.24 |
| | 473 | 9019 | Prairie Rd. | 192 | 285 | 0.67 | 111 | 153 | 0.73 | 81 | 132 | 0.61 |
| | 440 | 401 | SH 53 | 1024 | 891 | 1.15 | 617 | 613 | 1.01 | 407 | 278 | 1.46 |
| | 9222 | 9226 | Riverbend Ave | 154 | 222 | 0.69 | 97 | 138 | 0.70 | 57 | 84 | 0.68 |
| | | | TOTAL | 2701 | 2847 | 0.95 | 1675 | 1603 | 1.04 | 1026 | 1244 | 0.82 |
| SCREENLINE NUMBER: | #16 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | McGuire Rd. Screenline # 16 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 651 | 652 | Seltice Way | 970 | 1051 | 0.92 | 570 | 502 | 1.14 | 400 | 549 | 0.73 |
| | 547 | 9672 | Poleline Ave. | 144 | 151 | 0.95 | 83 | 56 | 1.48 | 61 | 95 | 0.64 |
| | 476 | 9907 | Prairie Rd. | 268 | 288 | 0.93 | 157 | 159 | 0.99 | 111 | 129 | 0.86 |
| | 401 | 366 | SH 53 | 1306 | 917 | 1.42 | 741 | 551 | 1.34 | 565 | 366 | 1.54 |
| | | | TOTAL | 2688 | 2407 | 1.12 | 1551 | 1268 | 1.22 | 1137 | 1139 | 1.00 |
| SCREENLINE NUMBER: | #17 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Chase Rd. Screenline # 17 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9439 | 9004 | Seltice Way | 1213 | 1292 | 0.94 | 721 | 623 | 1.16 | 492 | 669 | 0.74 |
| | 550 | 551 | Poleline Ave. | 222 | 270 | 0.82 | 106 | 104 | 1.02 | 116 | 166 | 0.70 |
| | 478 | 479 | Prairie Rd. | 294 | 371 | 0.79 | 149 | 182 | 0.82 | 145 | 189 | 0.77 |
| | 411 | 1148 | Hayden Rd. | 445 | 212 | 2.10 | 225 | 91 | 2.47 | 220 | 121 | 1.82 |
| | | | TOTAL | 2174 | 2145 | 1.01 | 1201 | 1000 | 1.20 | 973 | 1145 | 0.85 |
| SCREENLINE NUMBER: | #18 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Spokane St. Screenline # 18 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 753 | 721 | 4th St. | 409 | 228 | 1.79 | 274 | 121 | 2.26 | 135 | 107 | 1.26 |
| | 765 | 9930 | 3rd St | 56 | 412 | 0.14 | 32 | 193 | 0.17 | 24 | 219 | 0.11 |
| | 9004 | 680 | Seltice Way | 1233 | 1464 | 0.84 | 644 | 704 | 0.91 | 589 | 760 | 0.78 |
| | 552 | 553 | Poleline Ave. | 539 | 517 | 1.04 | 225 | 244 | 0.92 | 314 | 273 | 1.15 |
| | 480 | 481 | Prairie Rd. | 358 | 489 | 0.73 | 170 | 222 | 0.77 | 188 | 267 | 0.70 |
| | | | TOTAL | 2595 | 3110 | 0.83 | 1345 | 1484 | 0.91 | 1250 | 1626 | 0.77 |

**PROJECT TITLE:** KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
**SCENARIO TITLE:** 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

**RUN # 9b** 2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

**Date:** 3/20/2009

**File Location** C:\Documents and Settings\jren\My Documents\

**Originated by:** Tony Wang

**Checked by:** Revised Template by Jin Ren

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| SCREENLINE NUMBER: | #19 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Idaho St. Screenline # 19 | | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | |
| | 724 | 725 | 4th St. | 245 | 127 | 1.93 | 219 | 92 | 2.38 | 26 | 35 | 0.74 | |
| | 682 | 709 | Seltice Way | 2181 | 1810 | 1.20 | 1015 | 818 | 1.24 | 1166 | 992 | 1.18 | |
| | 554 | 555 | Poleline | 452 | 514 | 0.88 | 237 | 265 | 0.89 | 215 | 249 | 0.86 | |
| | 482 | 483 | Prairie Rd. | 491 | 518 | 0.95 | 206 | 231 | 0.89 | 285 | 287 | 0.99 | |
| | | | TOTAL | 3369 | 2969 | 1.13 | 1677 | 1406 | 1.19 | 1692 | 1563 | 1.08 | |
| SCREENLINE NUMBER: | #20 | | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Greensferrry Rd. Screenline # 20 | | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | |
| | 9929 | 771 | 3rd St. | 210 | 273 | 0.77 | 125 | 153 | 0.82 | 85 | 120 | 0.71 | |
| | 728 | 730 | Seltice Way | 937 | 1395 | 0.67 | 543 | 606 | 0.90 | 394 | 789 | 0.50 | |
| | 664 | 665 | Mullan Ave | 554 | 1028 | 0.54 | 277 | 555 | 0.50 | 277 | 473 | 0.59 | |
| | 635 | 636 | 12th | 375 | 154 | 2.44 | 337 | 75 | 4.49 | 38 | 79 | 0.48 | |
| | 606 | 607 | 16th | 161 | 143 | 1.13 | 68 | 64 | 1.06 | 93 | 79 | 1.18 | |
| | 558 | 559 | Poleline Ave. | 468 | 539 | 0.87 | 114 | 247 | 0.46 | 354 | 292 | 1.21 | |
| | 486 | 487 | Prairie Rd. | 819 | 542 | 1.51 | 267 | 236 | 1.13 | 552 | 306 | 1.80 | |
| | 413 | 414 | Hayden Rd. | 492 | 295 | 1.67 | 236 | 124 | 1.90 | 256 | 171 | 1.50 | |
| | 1101 | 1154 | Wyoming Ave | 0 | 69 | 0.00 | 0 | 32 | 0.00 | 0 | 37 | 0.00 | |
| | 309 | 9029 | SH 53 | 1208 | 865 | 1.40 | 701 | 536 | 1.31 | 507 | 329 | 1.54 | |
| | | | TOTAL | 5224 | 5303 | 0.99 | 2668 | 2628 | 1.02 | 2556 | 2675 | 0.96 | |
| SCREENLINE NUMBER: | #21 | | | | | | | | | | | | |
| SCREENLINE LOCATION: | | SH 41 Screenline # 21 | | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | |
| | 9382 | 734 | Seltice Way | 1298 | 1314 | 0.99 | 1185 | 1114 | 1.06 | 113 | 200 | 0.57 | |
| | 9791 | 9382 | Seltice Way (Duplicate - new cou | 1576 | 1799 | 0.88 | 1152 | 1103 | 1.04 | 424 | 696 | 0.61 | |
| | 668 | 669 | Mullan Ave | 836 | 1204 | 0.69 | 530 | 690 | 0.77 | 306 | 514 | 0.60 | |
| | 561 | 562 | Poleline Rd. | 632 | 506 | 1.25 | 191 | 262 | 0.73 | 441 | 244 | 1.81 | |
| | 10057 | 488 | Prairie Rd. | 110 | 521 | 0.21 | 89 | 221 | 0.40 | 21 | 300 | 0.07 | |
| | 10138 | 415 | Hayden Rd. | 496 | 292 | 1.70 | 238 | 120 | 1.98 | 258 | 172 | 1.50 | |
| | 9037 | 1094 | Wyoming | 0 | 124 | 0.00 | 0 | 68 | 0.00 | 0 | 56 | 0.00 | |
| | 1151 | 332 | Lancaster | 7 | 18 | 0.39 | 0 | 8 | 0.00 | 7 | 10 | 0.70 | |
| | 324 | 323 | Nagel Ln | 55 | 168 | 0.33 | 30 | 69 | 0.43 | 25 | 99 | 0.25 | |
| | 287 | 293 | McCarney St N/O SR41 | 17 | 116 | 0.15 | 10 | 57 | 0.18 | 7 | 59 | 0.12 | |
| | 9305 | 281 | Stevens St | 127 | 85 | 1.49 | 79 | 64 | 1.23 | 48 | 21 | 2.29 | |
| | 9306 | 9309 | Washington St | 0 | 44 | 0.00 | 0 | 0 | N/A | 0 | 44 | 0.00 | |
| | 9295 | 310 | Boekel Rd | 114 | 72 | 1.58 | 43 | 31 | 1.39 | 71 | 41 | 1.73 | |
| | | | TOTAL | 5268 | 6263 | 0.84 | 3547 | 3807 | 0.93 | 1721 | 2456 | 0.70 | |

**PROJECT TITLE:** KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
**SCENARIO TITLE:** 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

**RUN # 9b** 2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

**Date:** 3/20/2009

**File Location** C:\Documents and Settings\jren\My Documents\

**Originated by:** Tony Wang

**Checked by:** Revised Template by Jin Ren

*Kootenai MPO*

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| SCREENLINE NUMBER: | #22 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Huetter Rd Screenline # 22 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9766 | 9946 | Maplewood | 25 | 109 | 0.23 | 0 | 50 | 0.00 | 25 | 59 | 0.42 |
| | 793 | 794 | Seltice Way | 1368 | 1129 | 1.21 | 875 | 553 | 1.58 | 493 | 576 | 0.86 |
| | 9043 | 685 | Mullan Ave | 150 | 101 | 1.49 | 66 | 34 | 1.94 | 84 | 67 | 1.25 |
| | 494 | 491 | Prairie Rd. | 996 | 918 | 1.08 | 435 | 432 | 1.01 | 561 | 486 | 1.15 |
| | 1160 | 367 | Wyoming Ave | 0 | 8 | 0.00 | 0 | 4 | 0.00 | 0 | 4 | 0.00 |
| | 1158 | 334 | Lancaster Ave | 211 | 41 | 5.15 | 106 | 12 | 8.83 | 105 | 29 | 3.62 |
| | 417 | 418 | Hayden Rd. | 1562 | 729 | 2.14 | 708 | 283 | 2.50 | 854 | 446 | 1.91 |
| | 10036 | 1096 | Boekel Ave | 176 | 236 | 0.75 | 81 | 106 | 0.76 | 95 | 130 | 0.73 |
| | | | TOTAL | 4488 | 3271 | 1.37 | 2271 | 1474 | 1.54 | 2217 | 1797 | 1.23 |
| SCREENLINE NUMBER: | #23 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | Ramsey Rd Screenline # 23 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 857 | 9734 | Ironwood Dr | 1067 | 1171 | 0.91 | 382 | 459 | 0.83 | 685 | 712 | 0.96 |
| | 813 | 9097 | Appleway | 364 | 1092 | 0.33 | 146 | 512 | 0.29 | 218 | 580 | 0.38 |
| | 689 | 9087 | Kathleen Ave | 1123 | 1543 | 0.73 | 514 | 750 | 0.69 | 609 | 793 | 0.77 |
| | 613 | 9083 | Dalton Ave | 297 | 253 | 1.17 | 111 | 121 | 0.92 | 186 | 132 | 1.41 |
| | 569 | 9100 | Hanley Ave | 1205 | 786 | 1.53 | 542 | 371 | 1.46 | 663 | 415 | 1.60 |
| | 524 | 10117 | Wilbur Ave Pinegrove | 135 | 250 | 0.54 | 61 | 101 | 0.60 | 74 | 149 | 0.50 |
| | 498 | 9050 | Prairie Ave | 1142 | 1440 | 0.79 | 516 | 686 | 0.75 | 626 | 754 | 0.83 |
| | 450 | 451 | Honeysuckle Ave | 88 | 285 | 0.31 | 41 | 149 | 0.28 | 47 | 136 | 0.35 |
| | 422 | 423 | Hayden Ave | 712 | 720 | 0.99 | 319 | 400 | 0.80 | 393 | 320 | 1.23 |
| | 387 | 388 | Miles Ave | 7 | 95 | 0.07 | 2 | 57 | 0.04 | 5 | 38 | 0.13 |
| | 368 | 369 | Wyoming Ave | 192 | 221 | 0.87 | 82 | 110 | 0.75 | 110 | 111 | 0.99 |
| | 336 | 337 | Lancaster Ave | 266 | 189 | 1.41 | 128 | 123 | 1.04 | 138 | 66 | 2.09 |
| | 9032 | 10072 | Boekel Rd | 902 | 246 | 3.67 | 414 | 85 | 4.87 | 488 | 161 | 3.03 |
| | 269 | 270 | Hwy 53 | 880 | 666 | 1.32 | 432 | 289 | 1.49 | 448 | 377 | 1.19 |
| | 251 | 1140 | Garwood Rd | 3 | 175 | 0.02 | 2 | 77 | 0.03 | 1 | 98 | 0.01 |
| | 245 | 1139 | Ohio Match Rd | 28 | 41 | 0.68 | 10 | 24 | 0.42 | 18 | 17 | 1.06 |
| | | | TOTAL | 8411 | 9173 | 0.92 | 3702 | 4314 | 0.86 | 4709 | 4859 | 0.97 |

**PROJECT TITLE:** KMPO TRAVEL DEMAND MODEL SCREENLINE VALIDATION
**SCENARIO TITLE:** 2007 Model Volume vs Roadway 07_Counts (PM PEAK HOUR)

**RUN # 9b**   2007 NEW LU, Roundabouts, UPDATED External X-I, I-X and X-X, Trip Rates, Trip Distribution, No Node Delay

**Date:**   3/20/2009

**File Location**   C:\Documents and Settings\jren\My Documents\

**Originated by:**   Tony Wang

**Checked by:**   Revised Template by Jin Ren

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| SCREENLINE NUMBER: | #24 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | US 95 Screenline # 24 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | **Total Model and Counts** | | | **EASTBOUND** | | | **WESTBOUND** | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 892 | 9129 | Walnut St | 323 | 269 | 1.20 | 107 | 157 | 0.68 | 216 | 112 | 1.93 |
| | 9903 | 9821 | Old US 95 n/o SH53 | 825 | 328 | 2.52 | 421 | 147 | 2.86 | 404 | 181 | 2.23 |
| | 9895 | 891 | US 95 | 1081 | 979 | 1.10 | 586 | 492 | 1.19 | 495 | 487 | 1.02 |
| | 896 | 1173 | Northwest Blvd | 1864 | 1922 | 0.97 | 890 | 945 | 0.94 | 974 | 977 | 1.00 |
| | 868 | 1172 | Ironwood Blvd | 1015 | 1270 | 0.80 | 475 | 735 | 0.65 | 540 | 535 | 1.01 |
| | 831 | 832 | Appleway Ave | 764 | 1415 | 0.54 | 393 | 688 | 0.57 | 371 | 727 | 0.51 |
| | 761 | 762 | Neider Ave | 960 | 1080 | 0.89 | 416 | 535 | 0.78 | 544 | 545 | 1.00 |
| | 691 | 692 | Kathleen Ave | 421 | 1083 | 0.39 | 305 | 587 | 0.52 | 116 | 496 | 0.23 |
| | 615 | 616 | Dalton Ave | 660 | 589 | 1.12 | 279 | 298 | 0.94 | 381 | 291 | 1.31 |
| | 571 | 9054 | Hanley Ave | 1019 | 925 | 1.10 | 437 | 457 | 0.96 | 582 | 468 | 1.24 |
| | 500 | 501 | Prairie Ave | 932 | 1135 | 0.82 | 463 | 705 | 0.66 | 469 | 430 | 1.09 |
| | 454 | 455 | Honeysuckle Ave | 791 | 758 | 1.04 | 371 | 337 | 1.10 | 420 | 421 | 1.00 |
| | 426 | 427 | Hayden Ave | 276 | 903 | 0.31 | 96 | 440 | 0.22 | 180 | 463 | 0.39 |
| | 9982 | 392 | Miles Ave | 314 | 250 | 1.26 | 178 | 119 | 1.50 | 136 | 131 | 1.04 |
| | 9983 | 373 | Wyoming Ave | 288 | 246 | 1.17 | 78 | 160 | 0.49 | 210 | 86 | 2.44 |
| | 338 | 339 | Lancaster Ave | 275 | 141 | 1.95 | 71 | 97 | 0.73 | 204 | 44 | 4.64 |
| | 252 | 253 | Garwood Rd | 151 | 193 | 0.78 | 91 | 112 | 0.81 | 60 | 81 | 0.74 |
| | 246 | 247 | Ohio Match Rd | 31 | 71 | 0.44 | 12 | 51 | 0.24 | 19 | 20 | 0.95 |
| | | | TOTAL | 11990 | 13557 | 0.88 | 5669 | 7062 | 0.80 | 6321 | 6495 | 0.97 |

| SCREENLINE NUMBER: | #25 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | West Side KMPO Screenline # 25 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | **Total Model and Counts** | | | **EASTBOUND** | | | **WESTBOUND** | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9015 | 717 | Seltice Way W/O Beck Rd | 576 | 557 | 1.03 | 310 | 300 | 1.03 | 266 | 257 | 1.04 |
| | 1049 | 9355 | Elder Rd @ Washington Line | 0 | 59 | 0.00 | 0 | 25 | 0.00 | 0 | 34 | 0.00 |
| | 1068 | 9362 | SH 58 @ Washington Line | 223 | 224 | 1.00 | 89 | 89 | 1.00 | 134 | 135 | 0.99 |
| | 1062 | 9354 | Bitter Rd east of US 95 | 0 | 6 | 0.00 | 0 | 4 | 0.00 | 0 | 2 | 0.00 |
| | 514 | 9945 | SH 53 @ Washington State Line | 668 | 669 | 1.00 | 380 | 380 | 1.00 | 288 | 289 | 1.00 |
| | 1046 | 9177 | Rockford Bay Rd east of US 95 | 99 | 138 | 0.72 | 49 | 42 | 1.17 | 50 | 96 | 0.52 |
| | 1079 | 9783 | Conkling Rd east of US 95 | 30 | 37 | 0.81 | 19 | 22 | 0.86 | 11 | 15 | 0.73 |
| | | | TOTAL | 1596 | 1690 | 0.94 | 847 | 862 | 0.98 | 749 | 828 | 0.90 |

| SCREENLINE NUMBER: | #26 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | East Side KMPO Screenline # 26 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | **Total Model and Counts** | | | **EASTBOUND** | | | **WESTBOUND** | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 1040 | 1042 | I 90 @ Shoshone Co. Line | 1007 | 1007 | 1.00 | 521 | 521 | 1.00 | 486 | 486 | 1.00 |
| | 949 | 9965 | Fernan Lake Rd @ CdA City Lim | 96 | 51 | 1.88 | 50 | 24 | 2.08 | 46 | 27 | 1.70 |
| | 980 | 976 | Mullan Trail Rd north of I 90 | 318 | 76 | 4.18 | 178 | 50 | 3.56 | 140 | 26 | 5.38 |
| | 990 | 987 | Sunnyside Rd south of Mullan Tr | 26 | 56 | 0.46 | 16 | 32 | 0.50 | 10 | 24 | 0.42 |
| | 344 | 345 | Lancaster Rd east of Rimrock | 288 | 107 | 2.69 | 181 | 54 | 3.35 | 107 | 53 | 2.02 |
| | 249 | 250 | Ohio Match Rd East of Rimrock | 0 | 34 | 0.00 | 0 | 23 | 0.00 | 0 | 11 | 0.00 |
| | 232 | 233 | Bunco Rd @ Nunn Rd | 279 | 54 | 5.17 | 122 | 24 | 5.08 | 157 | 30 | 5.23 |
| | 9999 | 200 | SH 54 West of Farragut Park En | 228 | 223 | 1.02 | 107 | 95 | 1.13 | 121 | 128 | 0.95 |
| | | | TOTAL | 2242 | 1608 | 1.39 | 1175 | 823 | 1.43 | 1067 | 785 | 1.36 |

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| SCREENLINE NUMBER: | #27 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCREENLINE LOCATION: | | Government Way Screenline # 27 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 9733 | 944 | Government Way | 465 | 349 | 1.33 | 219 | 166 | 1.32 | 246 | 183 | 1.34 |
| | 944 | 951 | N/O Sherman Ave | 1147 | 1307 | 0.88 | 629 | 657 | 0.96 | 518 | 650 | 0.80 |
| | 9825 | 931 | Foster Ave | 514 | 155 | 3.32 | 301 | 89 | 3.38 | 213 | 66 | 3.23 |
| | 9812 | 900 | Harrison Ave | 256 | 743 | 0.34 | 145 | 413 | 0.35 | 111 | 330 | 0.34 |
| | 833 | 834 | Appleway/Best Ave | 1215 | 1446 | 0.84 | 543 | 795 | 0.68 | 672 | 651 | 1.03 |
| | 777 | 779 | Neider Ave | 1006 | 1004 | 1.00 | 561 | 504 | 1.11 | 445 | 500 | 0.89 |
| | 10159 | 694 | Margaret Ave | 607 | 826 | 0.73 | 320 | 461 | 0.69 | 287 | 365 | 0.79 |
| | 617 | 618 | Dalton Ave | 498 | 622 | 0.80 | 289 | 347 | 0.83 | 209 | 275 | 0.76 |
| | 573 | 574 | Hanley Ave | 137 | 450 | 0.30 | 61 | 202 | 0.30 | 76 | 248 | 0.31 |
| | 527 | 528 | Wilbur Ave | 162 | 107 | 1.51 | 68 | 65 | 1.05 | 94 | 42 | 2.24 |
| | 502 | 503 | Prairie Ave | 844 | 840 | 1.00 | 493 | 482 | 1.02 | 351 | 358 | 0.98 |
| | 456 | 457 | Honeysuckle Ave | 510 | 497 | 1.03 | 270 | 269 | 1.00 | 240 | 228 | 1.05 |
| | 428 | 429 | Hayden Ave | 307 | 540 | 0.57 | 193 | 305 | 0.63 | 114 | 235 | 0.49 |
| | 393 | 394 | Miles Ave | 285 | 230 | 1.24 | 168 | 117 | 1.44 | 117 | 113 | 1.04 |
| | 374 | 9044 | Wyoming Ave | 151 | 89 | 1.70 | 4 | 56 | 0.07 | 147 | 33 | 4.45 |
| | 339 | 340 | Lancaster Ave | 329 | 244 | 1.35 | 164 | 143 | 1.15 | 165 | 101 | 1.63 |
| | | | TOTAL | 8433 | 9449 | 0.89 | 4428 | 5071 | 0.87 | 4005 | 4378 | 0.91 |
| SCREENLINE NUMBER: | #28 | | | | | | | | | | | |
| SCREENLINE LOCATION: | | I 90 Ramps Screenline # 28 | | | | | | | | | | |
| SL Section | Corresponding Links: EB and WB | | Total Model and Counts | | | EASTBOUND | | | WESTBOUND | | | |
| | From | To | ARTERIAL NAME | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts | 07_Model | 07_Counts | Model/Counts |
| | 752 | 719 | SR 90 @ Pleasant View Rd On | 1095 | 756 | 1.45 | 586 | 440 | 1.33 | 509 | 316 | 1.61 |
| | 751 | 752 | SR 90 @ Pleasant View Rd Off | 1260 | 768 | 1.64 | 645 | 409 | 1.58 | 615 | 359 | 1.71 |
| | 703 | 704 | I 90 Ramp @ Spokane St On | 505 | 692 | 0.73 | 105 | 315 | 0.33 | 400 | 377 | 1.06 |
| | 701 | 703 | I 90 Ramp @ Spokane St Off | 671 | 1123 | 0.60 | 468 | 705 | 0.66 | 203 | 418 | 0.49 |
| | 726 | 712 | I 90 Ramp @ Seltice Way EB On | 1834 | 719 | 2.55 | 877 | 265 | 3.31 | 957 | 454 | 2.11 |
| | 9709 | 736 | I 90 Ramp @ SH 41 On | 1081 | 1152 | 0.94 | 506 | 547 | 0.93 | 575 | 605 | 0.95 |
| | 732 | 731 | I 90 Ramp @ SH 41 Off | 1325 | 1366 | 0.97 | 585 | 623 | 0.94 | 740 | 743 | 1.00 |
| | 843 | 844 | I 90 Ramp @ NW Blvd/Ramsey | 1309 | 1197 | 1.09 | 253 | 329 | 0.77 | 1056 | 868 | 1.22 |
| | 826 | 843 | I 90 Ramp @ NW Blvd/Ramsey | 1203 | 1129 | 1.07 | 974 | 783 | 1.24 | 229 | 346 | 0.66 |
| | 859 | 849 | I 90 Ramp @ US 95 On | 1438 | 1151 | 1.25 | 587 | 325 | 1.81 | 851 | 826 | 1.03 |
| | 847 | 859 | I 90 Ramp @ US 95 Off | 914 | 902 | 1.01 | 504 | 642 | 0.79 | 410 | 260 | 1.58 |
| | 861 | 862 | I 90 Ramp @ 3rd/4th St On | 647 | 880 | 0.74 | 182 | 317 | 0.57 | 465 | 563 | 0.83 |
| | 860 | 9788 | I 90 Ramp @ 3rd/4th St Off | 962 | 820 | 1.17 | 710 | 582 | 1.22 | 252 | 238 | 1.06 |
| | 9795 | 912 | I 90 Ramp @ 15th St On | 460 | 389 | 1.18 | 166 | 71 | 2.34 | 294 | 318 | 0.92 |
| | 885 | 9796 | I 90 Ramp @ 15th St Off | 627 | 534 | 1.17 | 511 | 440 | 1.16 | 116 | 94 | 1.23 |
| | 9011 | 968 | I 90 Ramp @ 23rd St On | 459 | 407 | 1.13 | 104 | 88 | 1.18 | 355 | 319 | 1.11 |
| | 947 | 9948 | I 90 Ramp @ 23rd St Off | 465 | 434 | 1.07 | 374 | 347 | 1.08 | 91 | 87 | 1.05 |
| | | | TOTAL | 16255 | 14419 | 1.13 | 8137 | 7228 | 1.13 | 8118 | 7191 | 1.13 |
| | | | Overall | 150680 | 150206 | 1.00 | 73425 | 73300 | 1.00 | 77255 | 76906 | 1.00 |