

Memorandum

To: Kimberly Kerr, Assistant Chief Administrative Officer

Cc: Natalie Porter, PE, TE
Shawna Purvines
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From: Michael Schmitt, AICP CTP, PTP

Re: Technical Memorandum #8: Assignment
El Dorado County Travel Demand Model Update

Date: November 14, 2013

The purpose of this memorandum is to present the results of the validation analysis for the El Dorado County (EDC) Travel Demand Model (TDM). This memorandum explains the techniques, measures of effectiveness (MOEs), and criteria used to validate the EDC TDM.

The EDC TDM is validated for a 2010 base year using traffic count data provided by EDC for the period covering 2009 to 2011. The 2010 base year traffic assignment is validated for the daily (24 hour) assignment, the AM peak hour assignment, and the PM peak hour assignment. The validation process described within this memorandum is intended to establish a reasonable level of confidence that the model can be used as a forecasting tool for the analysis of future conditions.

I. Model Validation Methodology

The principle techniques used to validate the EDC TDM involved the use of static validation tests. Static validation tests compare the model's base year traffic volume estimates to traffic counts using standard statistical measures. It should be noted that although the evaluation criteria for validating travel demand models differ among planning agencies, most California agencies include standards established by FHWA¹ and Caltrans². Basic guidance regarding model validation is also provided in the *2010 California Regional Transportation Plan Guidelines*³. The validation techniques, MOEs, and criteria adopted for the EDC TDM conform to the requirements provided in these sources and are consistent with those of other comparable models.

As part of the model development process, two-way traffic counts for local roadways were obtained from EDC for the five year period between 2007 and 2011. Additional year 2010 counts for state highways were obtained for SR-49 and SR-193 from the Caltrans Traffic and Vehicle Systems Unit web site. Freeway traffic counts on US-50 were obtained from the Freeway Performance Measurement System (PeMS) web site for mixed-flow and HOV lanes. Freeway ramp counts on US-50 were obtained from EDC. Based on a review of this data, a total of 290 count locations were identified as being appropriate for use in validating the model.

¹ FHWA Calibration and Adjustment of System Planning Models, 1990.

² Travel Forecasting Guidelines, Caltrans, 1992

³ 2010 California Regional Transportation Plan Guidelines, California Transportation Commission

At the 290 locations identified for analysis, the EDC TDM was validated for a 2010 base year using traffic count data provided by EDC for the a period covering 2009 to 2011. The base year traffic assignment was validated for the daily (24 hour) assignment, the AM peak hour assignment, and the PM peak hour assignment. Validation analysis was carried out at the aggregate level (the entire model), through the use of screenlines to cordon off discrete areas of the County. The analysis was also stratified by roadway classification.

Validation of other modes, including transit, was completed through reasonableness checks using collected during the course of this study and/or normal trip estimates for similar areas. Specifically, a review of transit data was completed using information collected and presented in Technical Memorandum #5.

A limited trip distribution assessment was also completed based on household travel survey data previously established for the Sacramento Area Council of Governments (SACOG) Region.

II. Model Validation Criteria

The principle MOEs used to validate the overall EDC TDM is show in **Exhibit 1**. As presented, the criteria are reference those prescribed by Caltrans and the California Transportation Commission (CTC) guidelines that identify the maximum acceptable RMSE and correlation coefficient for the entire model and the percentage of screen lines and roadway links that should be within an allowable percent error. The allowable percent error correspond to graphs from NCHRP 255 shown in **Exhibit 2** and **Exhibit 3**, which illustrate the allowable deviation between the model volumes and the actual counts for screenlines and individual roadway links. As shown, the acceptable percent deviation has an inverse relationship with traffic volume (the acceptable percent deviation increases as traffic volumes decrease).

The percent error and percent RMSE targets by roadway classifications shown in **Exhibit 4** are based on FHWA guidelines.

Exhibit 1 – Model Validation Criteria

MOE	Validation Criteria
<p>The Correlation Coefficient (R) estimates the correlation between the model volume and the actual count. The R value has a range of -1.0 to 1.0 that indicates the linear relationship between the model volume and the actual count. A value of 0 suggest that there is no correlation between the model volume and the actual count. Additionally, the Coefficient of Determination (R^2), “or goodness of fit”, measures how well the model volumes and the actual counts predict each other using a simple linear regression. The R^2 value has a range of zero to one, with a value of one indicating an exact fit between the model volume and the actual count.</p>	<p>The model-wide correlation coefficient should be greater than 0.88</p>
<p>The Percent Root Mean Square Error (percent RMSE) is a statistical measure of accuracy that calculates the standard deviation of the errors, or differences between the volumes predicted by the model and the actual counts. A higher percent RMSE value suggests that there is increasing variability between the model volume and the actual count.</p>	<p>The maximum acceptable RMSE for the entire model should not exceed 35%.</p>
<p>The Percent Error is the difference between the model volume and the actual count divided by the actual count. The higher the percent error, the greater the difference is between the model volume and the actual count.</p>	<p>A minimum of 75% of the screen lines should be within their maximum desirable deviation</p> <p>A minimum of 75% of the roadway links should be within their maximum desirable deviation</p>

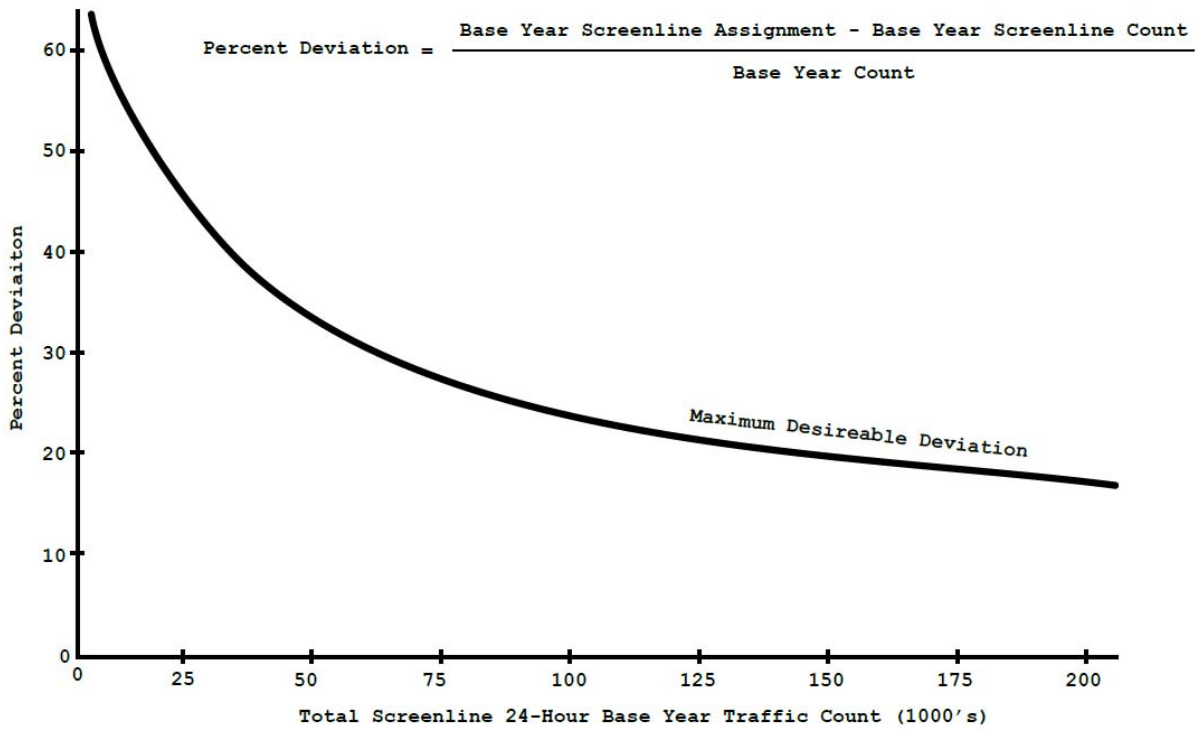


Exhibit 2 – Maximum Desirable Error for Screenline Volumes

Source: FHWA

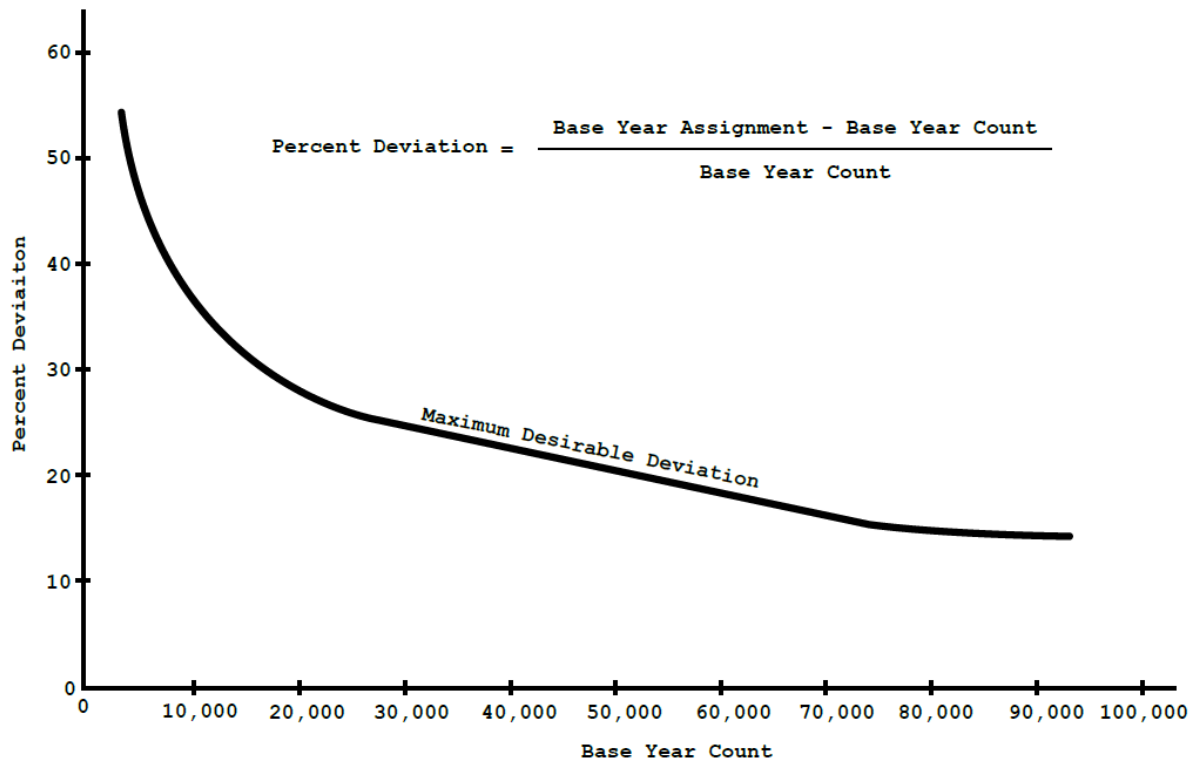


Exhibit 3 – Maximum Desirable Error for Link Volumes

Source: FHWA

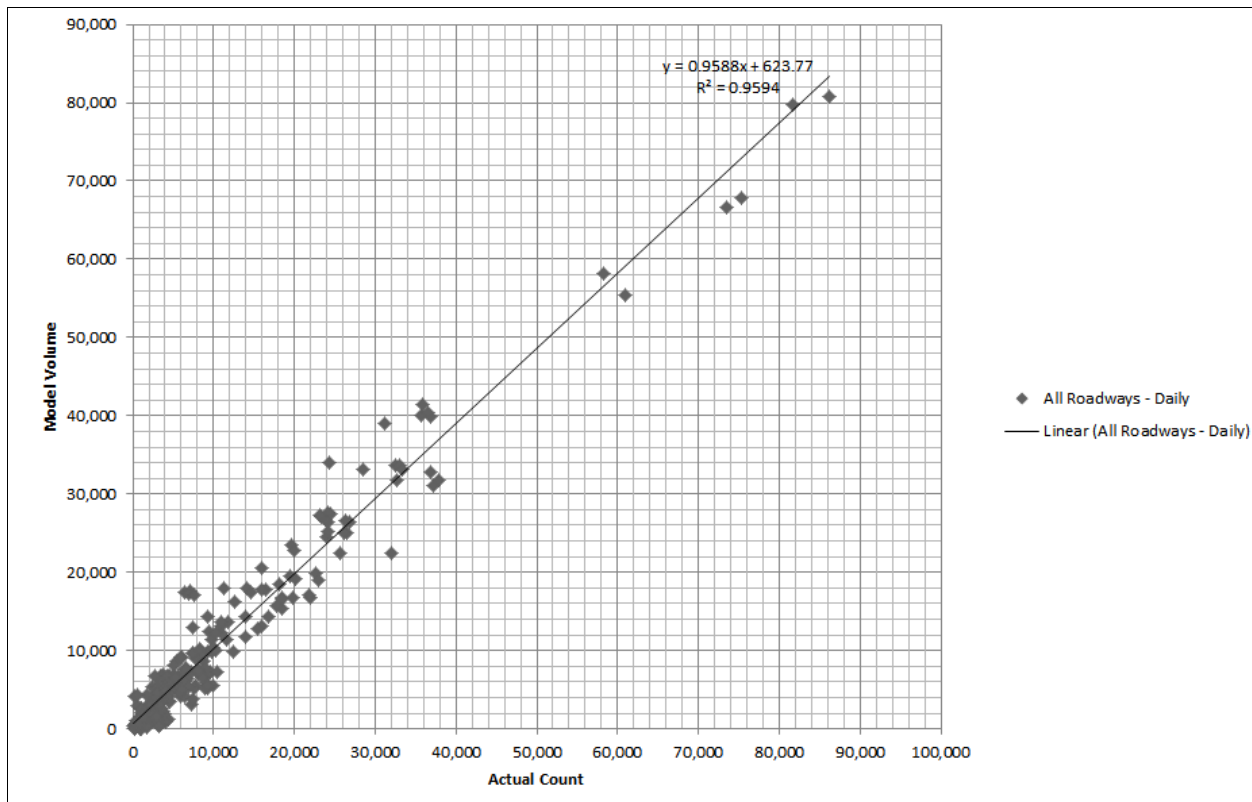
Exhibit 4 – Validation Criteria by Roadway Classification

Roadway Classification	Link Code (CAPCLASS)	Percent Error Target	Percent RMSE Target
Freeway	1,8	+/- 7%	15%
Major Arterial	3	+/- 10%	40%
Minor Arterial	4	+/- 15%	40%
Rural Arterial	24	+/- 15%	50%
Collector	5	+/- 25%	50%
Freeway Ramps	6	+/- 25%	50%
All Roads	n/a	+/- 10%	35%

III. Correlation Coefficient

The scatter plot in **Exhibit 5** graphs the model volume for each roadway link and the corresponding traffic count using a linear regression to show the relationship between the two. The model volumes and the actual counts have a positive correlation as shown by the slope of the trend line. The correlation coefficient for the overall model is 0.979, which indicates a strong relationship between the two variables and exceeds the targeted criteria of 0.88. The R^2 for the overall model is 0.959, which indicates that the model volumes and the actual counts are good predictors of each other.

Exhibit 5 – Model Correlation Coefficient



III. Roadway Classification

The validation of the daily traffic assignment by roadway classification is summarized in the tables that follow. The percent error and percent RMSE targets refer to the recommended limits adopted from FHWA and Caltrans guidelines. **Exhibit 6** summarizes the validation of the daily assignment by roadway classification. The EDC TDM meets all of the validation targets for allowable error by roadway classification. The overall model has a percent error 2.8%, which is within the limit of 10%.

Exhibit 6 – Percent Error by Roadway Classification

Roadway Classification	# Counts	Model	Observed	Difference	Percent Error	Target
Freeways	36	1,221,003	1,182,057	38,946	3.3%	+/- 7%
Major Arterials	24	417,193	432,498	-15,305	-3.5%	+/- 10%
Minor Arterials	15	142,199	148,257	-6,058	-4.1%	+/- 15%
Rural Arterials	105	619,699	544,410	75,289	13.8%	+/- 15%
Collectors	45	109,031	119,627	-10,596	-8.9%	+/- 25%
Ramps	65	201,777	210,374	-8,597	-4.1%	+/- 25%
ALL	290	2,710,902	2,637,223	73,679	2.8%	+/- 10%

Exhibit 7 summarizes the validation of the daily assignment according to the percent RMSE limits per roadway classification. The EDC TDM meets all of the validation targets for percent RMSE by roadway classification. The overall model has a percent RMSE of 28%, which is within the limit of 35%.

Exhibit 7 – Percent RMSE by Roadway Classification

Roadway Classification	#Counts	Percent RMSE	Target	RMSE
Freeways	36	10%	15%	3349.07
Major Arterials	24	24%	40%	4279.10
Minor Arterials	15	27%	40%	2675.45
Rural Arterials	105	33%	40%	1714.72
Collectors	45	43%	50%	1144.10
Ramps	65	38%	50%	1245.97
ALL	290	28%	35%	2523.05

IV. Screenlines

The daily traffic assignment was validated at five screen line locations shown in **Figure 9**. A screenline represent a group of individual links that are bisected by an imaginary line. Analysis of the traffic assignment using screenlines allows for evaluating traffic flows in subareas of the model area in a directional basis. The model volumes and the actual counts on the links that constitute the screenline are evaluated by comparing the percent error to the allowable limits recommended by NCHRP 255.

Exhibit 8 summarizes the validation of the daily assignment using screenlines. All five of the screenlines are within the allowable deviation using the NCHRP 255 limits.

Exhibit 8 – Screenline Validation

Screenline	Description	Model Volume	Observed	Percent Error	NCHRP 255 Limit
1	S/O US50	52,210	45,127	15.70%	±32.58%
2	E/O Sophia Parkway	134,535	128,951	4.33%	±22.58%
3	N/O US50	22,471	16,945	32.61%	±45.87%
4	W/O Missouri Flat Rd	87,230	80,430	8.45%	±26.63%
5	E/O Snows Rd	35,192	27,946	25.93%	±38.52%

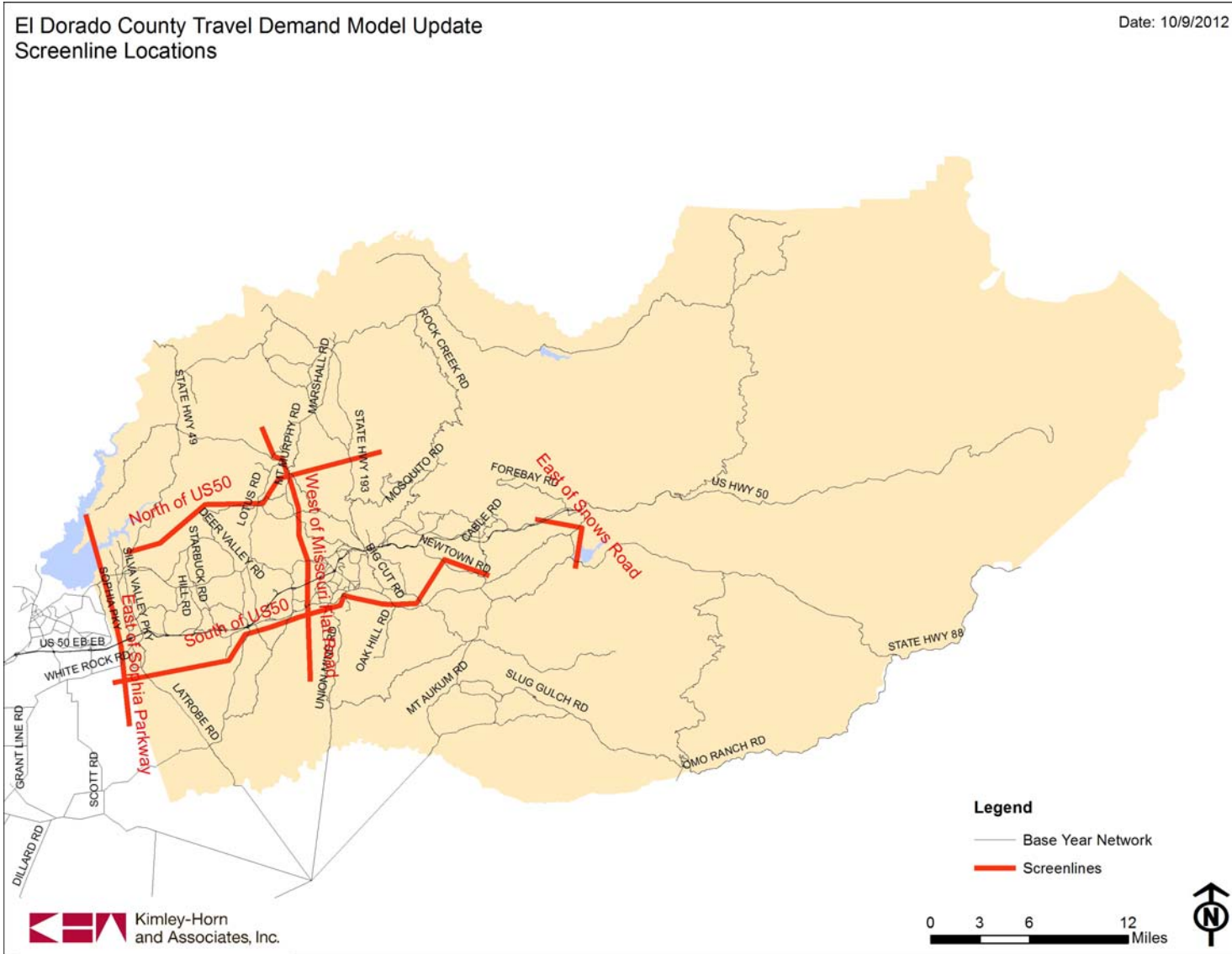


Exhibit 9 – Screenline Locations

V. Roadway Links

The daily traffic assignment for individual roadway links was analyzed for 290 count locations. The model volumes and the actual counts on the links are evaluated by comparing the percent error to the allowable limits recommended by NCHRP 255. The table below shows the roadway links at the count locations and how the percent error compared to limits according to NCHRP 255 criteria.

As shown in **Exhibit 10**, of the 290 count locations, 235 or 81% of the links are within the limits for percent error.

Exhibit 10 – Daily Roadway Link Validation

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
14331434	Freeways	US50 - EB GP	W. of Zinfandel Dr	81,715	79,733	-2.43%	±15.0%	YES
14301431	Freeways	US50 - WB GP	W. of Zinfandel Dr	86,271	80,811	-6.33%	±14.7%	YES
12691270	Freeways	US50 - EB GP	E. of Zinfandel Dr	75,274	67,870	-9.84%	±15.5%	YES
12711272	Freeways	US50 - WB GP	E. of Zinfandel Dr	73,524	66,674	-9.32%	±15.6%	YES
15181211	Freeways	US50 - EB GP	W. of Hazel Ave	61,006	55,488	-9.04%	±18.0%	YES
12101514	Freeways	US50 - WB GP	W. of Hazel Ave	58,218	58,156	-0.11%	±18.7%	YES
15191205	Freeways	US50 - EB HOV	W. of Hazel Ave	6,450	17,390	169.61%	±42.8%	NO
12081513	Freeways	US50 - WB HOV	W. of Hazel Ave	14,097	17,887	26.88%	±32.2%	YES
15651764	Freeways	US50 - EB GP	Iron Point Rd	36,833	32,733	-11.13%	±23.5%	YES
17691566	Freeways	US50 - WB GP	Iron Point Rd	28,463	33,130	16.40%	±24.9%	YES
15631763	Freeways	US50 - EB HOV	Iron Point Rd	18,435	15,322	-16.89%	±29.2%	YES
17701568	Freeways	US50 - WB HOV	Iron Point Rd	18,435	16,687	-9.48%	±29.2%	YES
18051806	Freeways	US50 - EB GP	Prairie City	37,239	31,124	-16.42%	±23.4%	YES
18021803	Freeways	US50 - WB GP	Prairie City	37,792	31,714	-16.08%	±23.2%	YES
17431795	Freeways	US50 - EB HOV	Prairie City	7,105	17,600	147.72%	±41.3%	NO
18041738	Freeways	US50 - WB HOV	Prairie City	6,876	17,323	151.94%	±41.8%	NO
20552065	Freeways	US50 - EB GP	W. of Latrobe	35,922	41,359	15.14%	±23.7%	YES
20642059	Freeways	US50 - WB GP	W. of Latrobe	36,909	39,931	8.19%	±23.4%	YES
10642049	Freeways	US50 - EB HOV	W. of Latrobe	10,908	12,243	12.24%	±35.3%	YES
20521072	Freeways	US50 - WB HOV	W. of Latrobe	10,908	13,122	20.30%	±35.3%	YES
20262027	Freeways	US50 - EB GP	W. of Bass Lake	35,639	40,077	12.45%	±23.7%	YES
20232024	Freeways	US50 - WB GP	W. of Bass Lake	36,492	40,365	10.61%	±23.5%	YES
19951996	Freeways	US50 - EB GP	W. of Cameron Park	32,734	31,785	-2.90%	±24.4%	YES
19901991	Freeways	US50 - WB GP	W. of Cameron Park	32,563	33,633	3.29%	±24.4%	YES
22642265	Freeways	US50 - EB GP	W. of Ponderosa	33,013	33,708	2.11%	±24.3%	YES
22662267	Freeways	US50 - WB GP	W. of Ponderosa	33,272	33,230	-0.13%	±24.3%	YES
19992000	Freeways	US50 - EB GP	W. of Shingle Springs	26,750	26,470	-1.05%	±25.5%	YES
19971998	Freeways	US50 - WB GP	W. of Shingle Springs	26,270	26,562	1.11%	±25.7%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
23872369	Freeways	US50 - EB GP	W. of Greenstone	24,491	27,418	11.95%	±26.3%	YES
23852386	Freeways	US50 - WB GP	W. of Greenstone	24,240	27,639	14.02%	±26.4%	YES
23702371	Freeways	US50 - EB GP	Greenstone	24,210	26,504	9.47%	±26.5%	YES
23752376	Freeways	US50 - WB GP	Greenstone	23,760	26,704	12.39%	±26.6%	YES
19461947	Freeways	US50 - EB GP	Missouri Flat	23,325	27,125	16.29%	±26.8%	YES
19441945	Freeways	US50 - WB GP	Missouri Flat	23,197	27,317	17.76%	±26.9%	YES
25722573	Freeways	US50 - EB GP	W. of Placerville	19,672	23,433	19.12%	±28.5%	YES
25742575	Freeways	US50 - WB GP	W. of Placerville	20,051	22,736	13.39%	±28.3%	YES
20912092	Ramps	US50 - WB off-ramp	EDH Blvd/Latrobe Rd Interchange	6,600	7,807	18.29%	±42.4%	YES
20922101	Ramps	US50 - WB on-ramp	EDH Blvd/Latrobe Rd Interchange	16,000	20,496	28.10%	±30.7%	YES
20942095	Ramps	US50 - EB loop off-amp	EDH Blvd/Latrobe Rd Interchange	8,700	8,699	-0.01%	±38.4%	YES
21002080	Ramps	US50 - EB off-ramp	EDH Blvd/Latrobe Rd Interchange	9,500	12,374	30.25%	±37.1%	YES
20801549 3	Ramps	US50 - EB on-ramp	EDH Blvd/Latrobe Rd Interchange	6,500	7,548	16.12%	±42.6%	YES
21162118	Ramps	US50 - WB off-ramp	Bass Lake Rd Interchange	1,300	1,430	10.00%	±76.4%	YES
21202023	Ramps	US50 - WB on-ramp	Bass Lake Rd Interchange	5,100	6,021	18.06%	±46.6%	YES
15495211 0	Ramps	US50 - EB off-ramp	Bass Lake Rd Interchange	5,300	6,079	14.70%	±45.9%	YES
21102113	Ramps	US50 - EB on-ramp	Bass Lake Rd Interchange	1,300	1,122	-13.69%	±76.4%	YES
19912123	Ramps	US50 - WB off-ramp	Cambridge Rd Interchange	4,500	1,262	-71.96%	±48.7%	NO
21302115	Ramps	US50 - WB on-ramp	Cambridge Rd Interchange	4,600	3,404	-26.00%	±48.3%	YES
21142122	Ramps	US50 - EB off-ramp	Cambridge Rd Interchange	4,100	4,186	2.10%	±50.4%	YES
21271995	Ramps	US50 - EB on-ramp	Cambridge Rd Interchange	4,100	851	-79.24%	±50.4%	NO
22672283	Ramps	US50 - WB off-ramp	Cameron Park Dr Interchange	7,800	5,572	-28.56%	±39.9%	YES
22732280	Ramps	US50 - WB loop on-ramp	Cameron Park Dr Interchange	3,400	3,774	11.00%	±53.9%	YES
22811990	Ramps	US50 - WB on-ramp	Cameron Park Dr Interchange	3,800	2,201	-42.08%	±51.8%	YES
19962273	Ramps	US50 - EB off-ramp	Cameron Park Dr Interchange	7,600	5,257	-30.83%	±40.3%	YES
22732264	Ramps	US50 - EB on-ramp	Cameron Park Dr Interchange	8,100	7,180	-11.36%	±39.4%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
19982299	Ramps	US50 - WB off-ramp	Ponderosa Rd Interchange	2,500	2,626	5.04%	±60.3%	YES
22962293	Ramps	US50 - WB loop on-ramp	Ponderosa Rd Interchange	5,000	5,175	3.50%	±46.9%	YES
19682266	Ramps	US50 - WB on-ramp	Ponderosa Rd Interchange	4,150	4,119	-0.75%	±50.2%	YES
22652294	Ramps	US50 - EB off-ramp	Ponderosa Rd Interchange	9,300	9,834	5.74%	±37.4%	YES
23011999	Ramps	US50 - EB on-ramp	Ponderosa Rd Interchange	2,400	2,597	8.21%	±61.2%	YES
23262327	Ramps	US50 - WB off-ramp	Shingle Springs Dr Interchange	720	1,014	40.83%	±94.7%	YES
23271997	Ramps	US50 - WB on-ramp	Shingle Springs Dr Interchange	920	24	-97.39%	±86.7%	NO
20002317	Ramps	US50 - EB off-ramp	Shingle Springs Dr Interchange	900	168	-81.33%	±87.4%	YES
23172312	Ramps	US50 - EB on-ramp	Shingle Springs Dr Interchange	600	948	58.00%	±101.2%	YES
23862389	Ramps	US50 - WB off-ramp	Red Hawk Interchange	1,001	1,510	50.85%	±84.1%	YES
23932391	Ramps	US50 - WB on-ramp	Red Hawk Interchange	1,001	1,423	42.16%	±84.1%	YES
23122389	Ramps	US50 - EB off-ramp	Red Hawk Interchange	1,001	1,373	37.16%	±84.1%	YES
23932387	Ramps	US50 - EB on-ramp	Red Hawk Interchange	1,001	1,540	53.85%	±84.1%	YES
23762397	Ramps	US50 - WB off-ramp	Greenstone Rd Interchange	880	685	-22.16%	±88.1%	YES
23972385	Ramps	US50 - WB on-ramp	Greenstone Rd Interchange	1,500	1,620	8.00%	±72.6%	YES
23692372	Ramps	US50 - EB off-ramp	Greenstone Rd Interchange	1,250	1,480	18.40%	±77.5%	YES
23722370	Ramps	US50 - EB on-ramp	Greenstone Rd Interchange	870	566	-34.94%	±88.4%	YES
19452425	Ramps	US50 - WB off-ramp	El Dorado Rd Interchange	1,350	1,716	27.11%	±75.4%	YES
24252375	Ramps	US50 - WB on-ramp	El Dorado Rd Interchange	1,750	1,102	-37.03%	±68.6%	YES
23712426	Ramps	US50 - EB off-ramp	El Dorado Rd Interchange	1,750	971	-44.51%	±68.6%	YES
24261946	Ramps	US50 - EB on-ramp	El Dorado Rd Interchange	1,100	1,592	44.73%	±81.2%	YES
26392650	Ramps	US50 - WB off-ramp	Missouri Flat Road	9,200	6,875	-25.27%	±37.6%	YES
26541944	Ramps	US50 - WB on-ramp	Missouri Flat Road	5,700	5,924	3.93%	±44.7%	YES
19472648	Ramps	US50 - EB off-ramp	Missouri Flat Road	6,800	6,377	-6.22%	±41.9%	YES
26482642	Ramps	US50 - EB on-ramp	Missouri Flat Road	9,600	7,216	-24.83%	±37.0%	YES
25212519	Ramps	US50 - WB off-ramp	Schnell School Rd.	1,100	495	-55.00%	±81.2%	YES
25192518	Ramps	US50 - WB on-ramp	Schnell School Rd.	3,400	2,502	-26.41%	±53.9%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
25302531	Ramps	US50 - EB off-ramp	Schnell School Rd.	3,400	554	-83.71%	±53.9%	NO
25312524	Ramps	US50 - EB on-ramp	Schnell School Rd.	2,100	1,725	-17.86%	±64.2%	YES
25262527	Ramps	US50 - WB off-ramp	Point View Dr.	230	35	-84.78%	±143.3%	YES
25272520	Ramps	US50 - WB on-ramp	Point View Dr.	2,100	2,914	38.76%	±64.2%	YES
25252528	Ramps	US50 - EB off-ramp	Point View Dr.	1,700	2,080	22.35%	±69.4%	YES
25282529	Ramps	US50 - EB on-ramp	Point View Dr.	410	172	-58.05%	±116.2%	YES
25332534	Ramps	US50 - WB off-ramp	Newtown Rd.	200	490	145.00%	±150.8%	YES
25352537	Ramps	US50 - EB on-ramp	Newtown Rd.	200	371	85.50%	±150.8%	YES
28692876	Ramps	US50 - WB off-ramp	E. Camino	460	386	-16.09%	±111.5%	YES
28772470	Ramps	US50 - WB on-ramp	E. Camino	1,100	383	-65.18%	±81.2%	YES
28722873	Ramps	US50 - EB off-ramp	E. Camino	1,100	309	-71.91%	±81.2%	YES
28692876	Ramps	US50 - EB on-ramp	E. Camino	520	1,778	241.92%	±106.6%	NO
28282905	Ramps	US50 - WB off-ramp	Sawmill	10	327	3170.00%	±447.2%	NO
29052862	Ramps	US50 - WB on-ramp	Sawmill	1,500	2,733	82.20%	±72.6%	NO
28952903	Ramps	US50 - EB off-ramp	Sawmill	1,700	1,574	-7.41%	±69.4%	YES
29032829	Ramps	US50 - EB on-ramp	Sawmill	1,700	508	-70.12%	±69.4%	NO
30973101	Ramps	US50 - WB off-ramp	Sly Park Road	480	519	8.13%	±109.8%	YES
31011020	Ramps	US50 - WB on-ramp	Sly Park Road	2,900	4,153	43.21%	±57.1%	YES
10193095	Ramps	US50 - EB off-ramp	Sly Park Road	3,000	3,545	18.17%	±56.4%	YES
30953091	Ramps	US50 - EB on-ramp	Sly Park Road	520	486	-6.54%	±106.6%	YES
22771975	Major Arterial	Cameron Park Dr	300 yds S of Hacienda Dr	18,103	18,553	2.49%	±29.4%	YES
22381983	Major Arterial	Cameron Park Dr	200 ft N of Oxford Rd	16,720	14,283	-14.58%	±30.3%	YES
20922089	Major Arterial	El Dorado Hills Bl	200 ft S of Saratoga Wy	31,136	38,978	25.19%	±24.7%	NO
19891988	Major Arterial	El Dorado Hills Bl	100 ft S of Wilson Bl	22,569	19,953	-11.59%	±27.1%	YES
21991989	Major Arterial	El Dorado Hills Bl	100 ft S of Olson Ln	21,931	16,805	-23.37%	±27.4%	YES
22022199	Major Arterial	El Dorado Hills Bl	10 ft N of Olson Ln	19,819	16,805	-15.21%	±28.4%	YES
31282169	Major Arterial	El Dorado Hills Bl	100 ft N of Harvard Wy	17,776	15,810	-11.06%	±29.6%	YES
21872159	Major Arterial	El Dorado Hills Bl	300 ft S of Francisco Dr	15,893	13,212	-16.87%	±30.8%	YES
21842161	Major Arterial	El Dorado Hills Bl	100 ft S of Green Vly Rd	5,109	5,448	6.64%	±46.5%	YES
21902185	Major Arterial	Francisco Dr	200 ft S of Green Valley Rd	12,406	9,775	-21.21%	±33.7%	YES
21822179	Major Arterial	Green Valley Rd	200 ft W of Mormon Island Dr	26,517	24,976	-5.81%	±25.6%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
21822176	Major Arterial	Green Valley Rd	200 ft E of Mormon Island Dr	26,232	24,976	-4.79%	±25.7%	YES
21892185	Major Arterial	Green Valley Rd	200 ft E of Francisco Dr	18,470	16,658	-9.81%	±29.2%	YES
20852078	Major Arterial	Latrobe Rd	300 ft N of White Rock Rd	24,389	34,008	39.44%	±26.4%	NO
26202618	Major Arterial	Missouri Flat Rd	100 ft N of SR 49	16,391	17,854	8.93%	±30.5%	YES
26722570	Major Arterial	Missouri Flat Rd	100 ft S of China Garden Rd	20,110	19,121	-4.92%	±28.3%	YES
26702668	Major Arterial	Missouri Flat Rd	S of Forni Rd	22,963	18,946	-17.49%	±27.0%	YES
26682644	Major Arterial	Missouri Flat Rd	400 yds N of Forni Rd	31,992	22,433	-29.88%	±24.6%	NO
26562654	Major Arterial	Missouri Flat Rd	100 ft S of Plaza Dr	21,884	17,043	-22.12%	±27.4%	YES
26562655	Major Arterial	Missouri Flat Rd	100 ft N of Plaza Dr	7,611	17,043	123.93%	±40.3%	NO
26271927	Major Arterial	Missouri Flat Rd	300 ft S of El Dorado Rd	9,097	5,828	-35.93%	±37.7%	YES
19681965	Major Arterial	North Shingle Rd	400 yds E of Ponderosa Rd	7,711	8,920	15.68%	±40.1%	YES
23532352	Major Arterial	North Shingle Rd	100 ft S of Green Valley Rd	5,848	6,100	4.31%	±44.3%	YES
22982294	Major Arterial	South Shingle Rd	100 ft S of Mother Lode Dr	11,821	13,665	15.60%	±34.3%	YES
22822279	Minor Arterial	Cameron Park Dr	100 ft N of Robin Ln	9,203	14,389	56.35%	±37.6%	NO
22731970	Minor Arterial	Cameron Park Dr	100 ft N of Coach Ln	25,703	22,469	-12.58%	±25.9%	YES
22462237	Minor Arterial	Cameron Park Dr	200 yds N of Mira Loma Dr	13,991	11,773	-15.85%	±32.3%	YES
22312220	Minor Arterial	Cameron Park Dr	200 yds S of Green Valley Rd	9,849	11,344	15.18%	±36.7%	YES
21312129	Minor Arterial	Country Club Dr	0.1 mi E of Merrychase Dr	2,482	5,335	114.95%	±60.5%	NO
22822276	Minor Arterial	Durock Rd	50 ft S of Robin Ln	6,159	9,178	49.02%	±43.5%	NO
22842277	Minor Arterial	Palmer Dr	100 ft E of Cameron Park Dr	8,899	7,864	-11.63%	±38.0%	YES
21952006	Minor Arterial	Serrano Pkwy	450 ft E of Silva Valley Pkwy	10,958	13,690	24.93%	±35.3%	YES
20062005	Minor Arterial	Silva Valley Pkwy	100 ft S of Serrano Pkwy	7,341	7,206	-1.84%	±40.8%	YES
31272006	Minor Arterial	Silva Valley Pkwy	100 ft N of Serrano Pkwy	10,008	5,609	-43.95%	±36.5%	NO

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
22032197	Minor Arterial	Silva Valley Pkwy	100 ft S of Harvard Wy	9,193	5,237	-43.03%	±37.6%	NO
21972196	Minor Arterial	Silva Valley Pkwy	100 ft N of Harvard Wy	7,308	3,049	-58.28%	±40.9%	NO
22072162	Minor Arterial	Silva Valley Pkwy	100 ft S of Green Valley Rd	6,060	5,536	-8.65%	±43.7%	YES
21722171	Minor Arterial	Sophia Pkwy	200 ft S of Green Valley Rd	5,666	6,770	19.48%	±44.8%	YES
20882085	Minor Arterial	White Rock Rd	100 ft E of Latrobe Rd	15,437	12,750	-17.41%	±31.1%	YES
28822856	Collector	Barkley Rd	50 ft N of Carson Rd	1,056	2,641	150.09%	±82.4%	NO
27392738	Collector	Bedford Av	At City Limits	467	680	45.61%	±110.8%	YES
25572511	Collector	Big Cut Rd	100 ft N of Pleasant Vly Rd	971	794	-18.23%	±85.0%	YES
27622452	Collector	Bucks Bar Rd	50 ft S of Pleasant Vly Rd	5,018	5,538	10.36%	±46.8%	YES
28112805	Collector	Bucks Bar Rd	300 ft N of Mt Aukum Rd	3,756	5,002	33.17%	±52.0%	YES
26232930	Collector	China Garden Rd	150 ft N of SR 49	968	72	-92.56%	±85.1%	NO
26722671	Collector	China Garden Rd	200 yds E of Missouri Flat Rd	3,588	2,140	-40.36%	±52.9%	YES
24042403	Collector	El Dorado Rd	200 yds N of Pleasant Vly Rd	2,490	1,620	-34.94%	±60.4%	YES
26132597	Collector	Enterprise Dr	100 ft E of Forni Rd	3,042	625	-79.45%	±56.2%	NO
28092477	Collector	Fairplay Rd	100 ft S of Mt Aukum Rd	2,109	2,529	19.91%	±64.1%	YES
31023087	Collector	Forebay Rd	100 ft N of Pony Express Tr	1,930	2,967	53.73%	±66.2%	YES
26002599	Collector	Forni Rd	200 ft N of SR 49	3,318	417	-87.43%	±54.4%	NO
26682667	Collector	Forni Rd	300 ft W of Missouri Flat Rd	8,928	5,117	-42.69%	±38.0%	NO
26342625	Collector	Forni Rd	30 ft W of Arroyo Vista Wy	1,709	1,586	-7.20%	±69.2%	YES
27042588	Collector	Forni Rd	W of P-ville Dr @ City Limits	1,285	1,425	10.89%	±76.8%	YES
22892255	Collector	French Creek Rd	300 ft S of Mother Lode Dr	2,892	3,199	10.62%	±57.2%	YES
30233022	Collector	Garden Valley Rd	300 ft N of SR 193	468	1,008	115.38%	±110.8%	NO
29922990	Collector	Garden Valley Rd	0.45 mi S of Marshall Rd	1,456	699	-51.99%	±73.4%	YES
29932991	Collector	Greenwood Rd	100 ft W of Marshall Rd	1,437	1,350	-6.05%	±73.7%	YES
29742973	Collector	Greenwood Rd	0.03 mi S of SR 193	1,134	78	-93.12%	±80.3%	NO
22012169	Collector	Harvard Wy	0.15 mi E of El Dorado Hills Bl	6,417	7,185	11.97%	±42.8%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
21972194	Collector	Harvard Wy	200 ft W of Silva Valley Pkwy	5,987	4,206	-29.75%	±43.9%	YES
30613060	Collector	Icehouse Rd	300 ft N of US 50	1,700	130	-92.35%	±69.4%	NO
26222583	Collector	Lime Kiln Rd	100 ft E of China Garden Rd	2,145	1,896	-11.61%	±63.7%	YES
22382009	Collector	Meder Rd	300 ft E of Cameron Park Dr	5,623	5,228	-7.02%	±44.9%	YES
23462336	Collector	Meder Rd	200 yds W of Ponderosa Rd	4,340	3,583	-17.44%	±49.4%	YES
27772773	Collector	Mosquito Rd	300 ft S of Union Ridge Rd	1,907	2,276	19.35%	±66.5%	YES
27672765	Collector	Mosquito Rd	At American River Br	1,211	1,477	21.97%	±78.4%	YES
28432831	Collector	Newtown Rd	200 yds N of Pleasant Vly Rd	2,758	3,475	26.00%	±58.2%	YES
27552753	Collector	Oak Hill Rd	300 ft S of Pleasant Vly Rd	2,037	1,378	-32.35%	±65.0%	YES
26022595	Collector	Patterson Dr	200 ft S of Pleasant Vly Rd	4,218	5,375	27.43%	±49.9%	YES
23462345	Collector	Ponderosa Rd	100 ft N of Meder Rd	1,454	1,034	-28.89%	±73.4%	YES
23562351	Collector	Ponderosa Rd	100 ft S of Green Valley Rd	949	931	-1.90%	±85.7%	YES
27212509	Collector	Rock Creek Rd	100 ft E of SR 193	224	8	-96.43%	±144.7%	YES
28132812	Collector	Sand Ridge Rd	100 ft W of Bucks Bar Rd	1,274	1,229	-3.53%	±77.0%	YES
20061972	Collector	Serrano Pkwy	250 ft W of Silva Valley Pkwy	8,430	10,061	19.35%	±38.8%	YES
29712969	Collector	Sliger Mine Rd	50 ft N of SR 193	873	705	-19.24%	±88.3%	YES
28502840	Collector	Snows Rd	400 ft N of Newtown Rd	928	1,560	68.10%	±86.4%	YES
29012852	Collector	Snows Rd	200 ft S of Carson Rd	2,296	1,925	-16.16%	±62.2%	YES
21091980	Collector	South Shingle Rd	0.5 mi E of Latrobe Rd	899	2,629	192.44%	±87.4%	NO
22712270	Collector	South Shingle Rd	100 ft N of Barnett Ranch Rd	2,629	3,624	37.85%	±59.2%	YES
22222220	Collector	Starbuck Rd	110 ft N of Green Valley Rd	1,676	1,509	-9.96%	±69.7%	YES
27692768	Collector	Union Ridge Rd	100 ft W of Hassler Rd	513	417	-18.71%	±107.1%	YES
30473016	Collector	Wentworth Springs Rd	100 ft W of Quintette Rd	740	446	-39.73%	±93.8%	YES
20792077	Collector	White Rock Rd	100 ft S of Silva Valley Pkwy	10,377	7,257	-30.07%	±36.0%	YES
21192021	Rural Arterial	Bass Lake Rd	400 yd N of Country Club Dr	9,832	9,819	-0.13%	±36.7%	YES
22402221	Rural Arterial	Bass Lake Rd	100 yd S of Green Vly Rd	5,349	8,626	61.26%	±45.8%	NO

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
29641014	Rural Arterial	Bassi Rd	200 ft W of Lotus Rd	1,090	582	-46.61%	±81.5%	YES
25122505	Rural Arterial	Broadway	At City Limits	4,118	6,529	58.55%	±50.3%	NO
21342133	Rural Arterial	Cambridge Rd	At US 50 OC	9,287	5,551	-40.23%	±37.5%	NO
21262125	Rural Arterial	Cambridge Rd	300 ft S of Country Club Dr.	8,405	9,481	12.80%	±38.8%	YES
21392125	Rural Arterial	Cambridge Rd	100 ft N of Country Club Dr	8,145	7,699	-5.48%	±39.3%	YES
22422236	Rural Arterial	Cambridge Rd	300 yds N of Oxford Rd	5,030	6,872	36.62%	±46.8%	YES
22412215	Rural Arterial	Cambridge Rd	300 ft S of Green Valley Rd	4,481	6,811	52.00%	±48.8%	NO
27762774	Rural Arterial	Carson Rd	0.6 Mi E of City Limits	2,015	1,443	-28.39%	±65.2%	YES
28752870	Rural Arterial	Carson Rd	300 yds E of Gatlin Rd	1,479	782	-47.13%	±73.0%	YES
28672864	Rural Arterial	Carson Rd	At Carson Ct	1,962	519	-73.55%	±65.8%	NO
28842856	Rural Arterial	Carson Rd	100 ft W of Barkley Rd	3,436	4,695	36.64%	±53.7%	YES
28962892	Rural Arterial	Carson Rd	100 ft E of Ponderosa Wy	2,610	1,968	-24.60%	±59.4%	YES
27522749	Rural Arterial	Cedar Ravine Rd	0.1 Mi N of Pleasant Vly Rd	1,891	1,966	3.97%	±66.7%	YES
27592544	Rural Arterial	Cedar Ravine Rd	0.25 Mi S of Country Club Dr	2,603	2,620	0.65%	±59.4%	YES
27312730	Rural Arterial	Cold Springs Rd	At City Limits	4,094	4,818	17.68%	±50.4%	YES
24412440	Rural Arterial	Cold Springs Rd	300 yds S of Gold Hill Rd	3,177	2,686	-15.45%	±55.3%	YES
24472445	Rural Arterial	Cold Springs Rd	100 ft S of SR 153	1,952	2,297	17.67%	±66.0%	YES
21112021	Rural Arterial	Country Club Dr	0.4 mi E of Bass Lake Rd	3,706	6,843	84.65%	±52.3%	NO
21282124	Rural Arterial	Country Club Dr	0.15 mi W of Knollwood Dr	3,659	3,610	-1.34%	±52.5%	YES
21362125	Rural Arterial	Country Club Dr	300 yds E of Cambridge Rd	3,064	5,392	75.98%	±56.0%	NO
22832278	Rural Arterial	Country Club Dr	0.2 mi W of Cameron Park Dr	4,044	5,066	25.27%	±50.6%	YES
22982297	Rural Arterial	Durock Rd	50 ft W of S Shingle Rd	5,905	9,124	54.51%	±44.1%	NO
24261910	Rural Arterial	El Dorado Rd	0.2 mi S of US 50	5,092	5,452	7.07%	±46.6%	YES
24282425	Rural Arterial	El Dorado Rd	0.11 N of US 50	2,352	2,357	0.21%	±61.6%	YES
19391927	Rural Arterial	El Dorado Rd	50 ft N of Missouri Flat Rd	2,751	2,556	-7.09%	±58.2%	YES
21852177	Rural Arterial	Francisco Dr	200 ft N of Green Valley Rd	14,038	14,287	1.77%	±32.2%	YES
21922191	Rural Arterial	Francisco Dr	100 ft S of Sheffield Dr	2,606	1,321	-49.31%	±59.4%	YES
21932192	Rural Arterial	Francisco Dr	300 yds N of Sheffield Dr	981	1,321	34.66%	±84.7%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
23602324	Rural Arterial	Gold Hill Rd	100 ft E of Lotus Rd	1,860	2,045	9.95%	±67.1%	YES
24432440	Rural Arterial	Gold Hill Rd	200 ft W of Cold Springs Rd	1,829	1,949	6.56%	±67.5%	YES
24382437	Rural Arterial	Gold Hill Rd	100 yds E of Cold Springs Rd	485	735	51.55%	±109.3%	YES
21711046	Rural Arterial	Green Valley Rd	200 ft W of Sophia Pkwy	23,977	24,550	2.39%	±26.5%	YES
21812180	Rural Arterial	Green Valley Rd	200 ft E of Sophia Pkwy	24,135	25,159	4.24%	±26.5%	YES
21622161	Rural Arterial	Green Valley Rd	300 ft W of Silva Valley Pkwy	14,594	17,510	19.98%	±31.8%	YES
22212214	Rural Arterial	Green Valley Rd	200 ft W of Bass Lake Rd	10,242	12,235	19.46%	±36.1%	YES
22212215	Rural Arterial	Green Valley Rd	300 ft W of Cameron Park Dr	11,206	17,889	59.64%	±35.0%	NO
22502218	Rural Arterial	Green Valley Rd	300 ft E of La Crescenta Dr	6,402	6,077	-5.08%	±42.9%	YES
23412334	Rural Arterial	Green Valley Rd	500 ft E of Deer Valley Rd (E)	4,884	5,112	4.67%	±47.3%	YES
23592350	Rural Arterial	Green Valley Rd	300 ft W of Lotus Rd	7,414	9,623	29.79%	±40.6%	YES
24012399	Rural Arterial	Green Valley Rd	100 ft W of Greenstone Rd	4,075	3,918	-3.85%	±50.5%	YES
24232422	Rural Arterial	Green Valley Rd	400 ft W of Campus Dr	4,462	4,167	-6.61%	±48.9%	YES
24232420	Rural Arterial	Green Valley Rd	200 ft W of Missouri Flat Rd	6,357	4,167	-34.45%	±43.0%	YES
19301929	Rural Arterial	Green Valley Rd	100 ft W of Weber Creek Br	3,952	1,900	-51.92%	±51.1%	NO
23952383	Rural Arterial	Greenstone Rd	300 ft N of Mother Lode Dr	1,284	884	-31.15%	±76.8%	YES
23972368	Rural Arterial	Greenstone Rd	0.20 mi N of US 50	2,784	3,634	30.53%	±58.0%	YES
28062805	Rural Arterial	Grizzly Flat Rd	200 yds E of Mt Aukum Rd	2,335	2,274	-2.61%	±61.8%	YES
21662160	Rural Arterial	Lake Hills Dr	100 ft N of Salmon Falls Rd	3,202	1,929	-39.76%	±55.1%	YES
19631962	Rural Arterial	Latrobe Rd	250 ft N of County Line	3,395	6,702	97.41%	±54.0%	NO
21081980	Rural Arterial	Latrobe Rd	1.5 mi N of S Shingle Rd	3,559	6,747	89.58%	±53.0%	NO
19641963	Rural Arterial	Latrobe Rd	At Deer Creek Bridge	4,526	6,702	48.08%	±48.6%	YES
20722025	Rural Arterial	Latrobe Rd	100 ft S of Investment Bl	5,150	8,206	59.34%	±46.4%	NO
20732072	Rural Arterial	Latrobe Rd	100 ft N of Investment Bl	8,075	7,234	-10.41%	±39.4%	YES
20422041	Rural Arterial	Latrobe Rd	100 ft N of Golden Foothill Pw	19,514	19,574	0.31%	±28.6%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
23572350	Rural Arterial	Lotus Rd	300 ft N of Green Valley Rd	7,386	9,668	30.90%	±40.7%	YES
23602314	Rural Arterial	Lotus Rd	300 ft S of Thompson Hill Rd	5,103	5,868	14.99%	±46.5%	YES
29872984	Rural Arterial	Lotus Rd	0.25 mi S of SR 49	5,186	5,819	12.21%	±46.3%	YES
23622360	Rural Arterial	Luneman Rd	100 ft W of Lotus Rd	2,387	2,940	23.17%	±61.3%	YES
29852968	Rural Arterial	Marshall Rd	200 yds E of SR 49	3,495	3,341	-4.41%	±53.4%	YES
29942992	Rural Arterial	Marshall Rd	300 ft E of Garden Valley Rd	4,383	4,676	6.68%	±49.2%	YES
30353034	Rural Arterial	Marshall Rd	300 yds S of Lower Main St	643	2,977	362.99%	±98.7%	NO
19271926	Rural Arterial	Missouri Flat Rd	300 ft N of El Dorado Rd	7,442	3,904	-47.54%	±40.6%	NO
30773075	Rural Arterial	Mormon Emigrant Tr	100 ft E of Sly Park Rd	1,108	2,045	84.57%	±81.0%	NO
25402539	Rural Arterial	Mosquito Rd	At City Limits	3,501	6,169	76.21%	±53.4%	NO
23002287	Rural Arterial	Mother Lode Dr	200 ft W of Sunset Ln	12,659	16,199	27.96%	±33.5%	YES
24122408	Rural Arterial	Mother Lode Dr	400 yds W of Pleasant Valley Rd	8,303	10,180	22.61%	±39.0%	YES
24122409	Rural Arterial	Mother Lode Dr	0.43 mi E of Pleasant Valley Rd	3,558	2,605	-26.78%	±53.1%	YES
1922668	Rural Arterial	Mt Aukum Rd	0.25 mi N of County Line	1,764	351	-80.10%	±68.4%	NO
28082805	Rural Arterial	Mt Aukum Rd	300 ft S of Bucks Bar Rd	3,695	4,817	30.37%	±52.3%	YES
28472846	Rural Arterial	Mt Aukum Rd	300 ft S of Pleasant Vly Rd	2,949	4,031	36.69%	±56.8%	YES
29832980	Rural Arterial	Mt Murphy Rd	50 ft S of Marshall Rd	1,130	2,633	133.01%	±80.4%	NO
29881010	Rural Arterial	Mt Murphy Rd	200 yds N of SR 49	302	4,230	1300.66%	±129.8%	NO
24632455	Rural Arterial	Newtown Rd	200 yds N of Pioneer Hill Rd	2,696	4,265	58.20%	±58.7%	YES
25472546	Rural Arterial	Newtown Rd	100 ft E of Broadway	3,857	5,132	33.06%	±51.5%	YES
20082007	Rural Arterial	Old Frenchtown Rd	400 yds S of Mother Lode Dr	1,209	1,969	62.86%	±78.5%	YES
25002478	Rural Arterial	Omo Ranch Rd	100 ft E of Mt Aukum Rd	834	696	-16.55%	±89.8%	YES
22442233	Rural Arterial	Oxford Rd	50 ft E of Salida Wy	4,366	6,136	40.54%	±49.3%	YES
24122405	Rural Arterial	Pleasant Valley Rd	200 yds E of Mother Lode Dr	6,662	7,575	13.70%	±42.3%	YES
26782579	Rural Arterial	Pleasant Valley Rd	200 yds E of SR 49 (E)	15,940	17,861	12.05%	±30.8%	YES
27532506	Rural Arterial	Pleasant Valley Rd	300 ft W of Oak Hill Rd	11,569	11,452	-1.01%	±34.6%	YES
27632749	Rural Arterial	Pleasant Valley Rd	100 ft E of Cedar Ravine Rd	9,992	10,303	3.11%	±36.5%	YES
24612457	Rural Arterial	Pleasant Valley Rd	0.10 mi E of Bucks Bar	5,565	5,035	-9.52%	±45.1%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
			Rd					
28432839	Rural Arterial	Pleasant Valley Rd	0.40 mi E of Newtown Rd	5,313	5,116	-3.71%	±45.9%	YES
19841968	Rural Arterial	Ponderosa Rd	300 ft N of Wild Chaparral Dr	6,894	5,379	-21.98%	±41.7%	YES
29042896	Rural Arterial	Pony Express Tr	200 yds E of Carson Rd	3,086	4,616	49.58%	±55.9%	YES
29182917	Rural Arterial	Pony Express Tr	300 ft E of Gilmore Rd	4,927	5,093	3.37%	±47.1%	YES
31043102	Rural Arterial	Pony Express Tr	300 ft W of Forebay Rd	5,989	4,646	-22.42%	±43.9%	YES
21632161	Rural Arterial	Salmon Falls Rd	50 ft S of Malcolm-Dixon Rd	7,440	12,900	73.39%	±40.6%	NO
21502149	Rural Arterial	Salmon Falls Rd	At New York Creek Bridge	2,707	6,718	148.17%	±58.6%	NO
29482943	Rural Arterial	Salmon Falls Rd	400 yds S of Pedro Hill Rd	1,673	4,416	163.96%	±69.8%	NO
29472946	Rural Arterial	Salmon Falls Rd	200 yds S of Rattlesnake Bar Rd	539	4,416	719.29%	±105.2%	NO
24961935	Rural Arterial	Sand Ridge Rd	300 ft E of SR 49	581	1,076	85.20%	±102.4%	YES
22292152	Rural Arterial	Serrano Pkwy	300 ft W of Bass Lake Rd	4,193	6,721	60.29%	±50.0%	NO
23182317	Rural Arterial	Shingle Springs Dr	0.20 mi S of US 50	2,391	1,680	-29.74%	±61.3%	YES
28462823	Rural Arterial	Sly Park Rd	0.35 mi E of Mt Aukum Rd	3,319	3,045	-8.26%	±54.4%	YES
30783077	Rural Arterial	Sly Park Rd	1.62 mi W of Mormon Emigrant Tr	2,241	3,095	38.11%	±62.7%	YES
30773073	Rural Arterial	Sly Park Rd	0.35 mi E of Mormon Emigrant Tr	4,034	4,862	20.53%	±50.7%	YES
31073094	Rural Arterial	Sly Park Rd	100 ft S of Gold Ridge Tr (N)	5,211	6,552	25.73%	±46.2%	YES
31033101	Rural Arterial	Sly Park Rd	100 ft S of Pony Express Tr	8,579	6,627	-22.75%	±38.5%	YES
22902288	Rural Arterial	South Shingle Rd	100 ft S of Sunset Ln	6,054	5,028	-16.95%	±43.7%	YES
26042603	Rural Arterial	Union Mine Rd	200 yds S of SR 49	1,320	1,595	20.83%	±76.0%	YES
30293028	Rural Arterial	Wentworth Springs Rd	0.7 mi E of Main St	2,966	1,607	-45.82%	±56.7%	YES
20382037	Rural Arterial	White Rock Rd	At County Line	8,072	7,528	-6.74%	±39.4%	YES
20872086	Rural Arterial	White Rock Rd	100 ft W of Latrobe Rd	10,345	10,091	-2.46%	±36.0%	YES

VI. Time of Day Factors

Exhibit 11 summarizes how the proportion of the daily assignment is distributed in the three hour assignments for the AM and PM peak periods. The traffic counts for each roadway classification were analyzed to develop global peak hour factors. The resulting AM peak hour factor (0.37) and PM peak hour factor (0.34) were then applied to their respective peak period trip tables to develop peak hour trip tables which were then used to complete a one hour assignment.

Exhibit 11 – Time of Day Factors

Roadway Classification	AM			PM		
	Observed Peak Period	% of Daily Assignment	Peak Hour Factor	Observed Peak Period	% of Daily Assignment	Peak Hour Factor
Freeways	7:00 – 9:00	21.28%	0.37	15:00 – 17:00	24.18%	0.34
Major Arterials	8:00 – 10:00	20.46%	0.37	16:00 – 18:00	24.63%	0.34
Minor Arterials	8:00 – 10:00	20.98%	0.38	16:00 – 18:00	27.53%	0.34
Rural Arterials	8:00 – 10:00	21.86%	0.36	16:00 – 18:00	26.11%	0.34
Collectors	8:00 – 10:00	22.26%	0.37	15:00 – 17:00	27.09%	0.34

VII. Validation of the Peak Period Assignments

Exhibit 12 summarizes the validation of the three hour assignments for the AM and PM peak periods.

Exhibit 12 – Peak Period Validation

Roadway Classification	AM Peak Period		PM Peak Period		Percent Error		Percent RMSE	
	Model	Observed	Model	Observed	AM	PM	AM	PM
Freeways	253,481	253,370	287,113	299,486	0.0%	-4.1%	40%	34%
Major Arterials	86,471	81,474	101,532	102,924	6.1%	-1.4%	26%	24%
Minor Arterials	31,657	27,056	38,451	37,204	17.0%	3.4%	40%	28%
Rural Arterials	137,606	106,148	158,343	135,031	29.6%	17.3%	46%	35%
Collectors	25,254	24,093	29,793	29,660	4.8%	0.4%	47%	46%
Ramps	41,929	45,093	50,591	53,300	-7.0%	-5.1%	61%	43%
ALL	576,398	537,234	665,823	657,605	7.3%	1.2%	60%	50%

VIII. Validation of the Peak Hour Assignments

Exhibit 13 summarizes the validation of the one hour assignments for the AM and PM peak hour periods.

Exhibit 13 – Peak Hour Validation

Roadway Classification	AM Peak Hour		PM Peak Hour		Percent Error		Percent RMSE	
	Model	Observed	Model	Observed	AM	PM	AM	PM
Freeways	92,377	94,377	96,789	103,096	-2.1%	-6.1%	40%	34%
Major Arterials	31,744	29,798	34,578	36,171	6.5%	-4.4%	28%	24%
Minor Arterials	11,729	11,613	12,930	13,045	1.0%	-0.9%	39%	28%
Rural Arterials	50,102	41,377	52,202	48,003	21.1%	8.7%	49%	35%
Collectors	9,262	10,066	9,590	10,778	-8.0%	-11.0%	47%	43%
Ramps	15,330	16,684	17,020	18,122	-8.1%	-6.1%	61%	41%
ALL	210,544	203,916	223,109	229,215	3.3%	-2.7%	60%	49%

The peak hour traffic assignments for individual roadway links was analyzed for 290 count locations. The model volumes and the actual counts on the links are evaluated by comparing the percent error to the allowable limits recommended by NCHRP 255. The table below shows the roadway links at the count locations and how the percent error compared to limits according to NCHRP 255 criteria.

As shown in **Exhibit 14**, of the 290 count locations, 274 or 94% of the links are within the limits for percent error in the AM peak hour and in **Exhibit 15**, 279 or 96% of the links are within the limits for percent error in the PM peak hour.

Exhibit 14 – AM Peak Hour Roadway Link Validation

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
14331434	Freeways	US50 - EB GP	W. of Zinfandel Dr	5,612	5,660	0.86%	±45.0%	YES
14301431	Freeways	US50 - WB GP	W. of Zinfandel Dr	6,945	6,229	-10.31%	±41.6%	YES
12691270	Freeways	US50 - EB GP	E. of Zinfandel Dr	4,352	4,333	-0.44%	±49.3%	YES
12711272	Freeways	US50 - WB GP	E. of Zinfandel Dr	7,117	5,663	-20.43%	±41.2%	YES
15181211	Freeways	US50 - EB GP	W. of Hazel Ave	3,883	3,505	-9.72%	±51.4%	YES
12101514	Freeways	US50 - WB GP	W. of Hazel Ave	5,413	5,822	7.55%	±45.6%	YES
15191205	Freeways	US50 - EB HOV	W. of Hazel Ave	2,109	469	-77.76%	±64.1%	NO
12081513	Freeways	US50 - WB HOV	W. of Hazel Ave	2,372	888	-62.56%	±61.5%	NO
15651764	Freeways	US50 - EB GP	Iron Point Rd	2,109	2,122	0.64%	±64.1%	YES
17691566	Freeways	US50 - WB GP	Iron Point Rd	2,372	4,565	92.46%	±61.5%	NO
15631763	Freeways	US50 - EB HOV	Iron Point Rd	2,142	278	-87.02%	±63.8%	NO
17701568	Freeways	US50 - WB HOV	Iron Point Rd	3,946	819	-79.25%	±51.1%	NO
18051806	Freeways	US50 - EB GP	Prairie City	2,142	1,950	-8.98%	±63.8%	YES
18021803	Freeways	US50 - WB GP	Prairie City	3,946	4,183	6.00%	±51.1%	YES
17431795	Freeways	US50 - EB HOV	Prairie City	1,715	317	-81.52%	±69.1%	NO
18041738	Freeways	US50 - WB HOV	Prairie City	2,864	947	-66.94%	±57.4%	NO
20552065	Freeways	US50 - EB GP	W. of Latrobe	1,715	2,502	45.85%	±69.1%	YES
20642059	Freeways	US50 - WB GP	W. of Latrobe	2,864	4,705	64.26%	±57.4%	NO
10642049	Freeways	US50 - EB HOV	W. of Latrobe	622	296	-52.38%	±99.9%	YES
20521072	Freeways	US50 - WB HOV	W. of Latrobe	622	614	-1.22%	±99.9%	YES
20262027	Freeways	US50 - EB GP	W. of Bass Lake	1,451	1,940	33.67%	±73.5%	YES
20232024	Freeways	US50 - WB GP	W. of Bass Lake	2,904	4,452	53.29%	±57.1%	YES
19951996	Freeways	US50 - EB GP	W. of Cameron Park	1,614	1,760	9.04%	±70.7%	YES
19901991	Freeways	US50 - WB GP	W. of Cameron Park	2,906	3,311	13.93%	±57.1%	YES
22642265	Freeways	US50 - EB GP	W. of Ponderosa	2,016	1,980	-1.80%	±65.2%	YES
22662267	Freeways	US50 - WB GP	W. of Ponderosa	2,969	3,217	8.37%	±56.7%	YES
19992000	Freeways	US50 - EB GP	W. of Shingle Springs	1,570	1,555	-0.99%	±71.4%	YES
19971998	Freeways	US50 - WB GP	W. of Shingle Springs	1,871	2,496	33.43%	±67.0%	YES
23872369	Freeways	US50 - EB GP	W. of Greenstone	1,442	1,608	11.53%	±73.6%	YES
23852386	Freeways	US50 - WB GP	W. of Greenstone	1,848	2,601	40.78%	±67.3%	YES
23702371	Freeways	US50 - EB GP	Greenstone	1,483	1,586	6.93%	±72.9%	YES
23752376	Freeways	US50 - WB GP	Greenstone	1,735	2,464	42.01%	±68.8%	YES
19461947	Freeways	US50 - EB GP	Missouri Flat	1,434	1,647	14.82%	±73.8%	YES
19441945	Freeways	US50 - WB GP	Missouri Flat	1,650	2,471	49.79%	±70.1%	YES
25722573	Freeways	US50 - EB GP	W. of Placerville	1,110	1,268	14.27%	±81.0%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
25742575	Freeways	US50 - WB GP	W. of Placerville	1,510	2,154	42.65%	±72.4%	YES
20912092	Ramps	US50 - WB off-ramp	EDH Blvd/Latrobe Rd Interchange	523	922	76.14%	±106.4%	YES
20922101	Ramps	US50 - WB on-ramp	EDH Blvd/Latrobe Rd Interchange	1,269	1,790	41.06%	±77.1%	YES
20942095	Ramps	US50 - EB loop off-amp	EDH Blvd/Latrobe Rd Interchange	690	400	-42.03%	±96.2%	YES
21002080	Ramps	US50 - EB off-ramp	EDH Blvd/Latrobe Rd Interchange	753	805	6.84%	±93.2%	YES
208015493	Ramps	US50 - EB on-ramp	EDH Blvd/Latrobe Rd Interchange	516	348	-32.49%	±106.9%	YES
21162118	Ramps	US50 - WB off-ramp	Bass Lake Rd Interchange	103	66	-35.98%	±191.8%	YES
21202023	Ramps	US50 - WB on-ramp	Bass Lake Rd Interchange	404	753	86.17%	±116.8%	YES
154952110	Ramps	US50 - EB off-ramp	Bass Lake Rd Interchange	420	223	-46.95%	±115.2%	YES
21102113	Ramps	US50 - EB on-ramp	Bass Lake Rd Interchange	103	116	12.51%	±191.8%	YES
19912123	Ramps	US50 - WB off-ramp	Cambridge Rd Interchange	357	47	-86.83%	±122.2%	YES
21302115	Ramps	US50 - WB on-ramp	Cambridge Rd Interchange	365	500	37.05%	±121.2%	YES
21142122	Ramps	US50 - EB off-ramp	Cambridge Rd Interchange	325	140	-56.94%	±126.4%	YES
21271995	Ramps	US50 - EB on-ramp	Cambridge Rd Interchange	325	67	-79.40%	±126.4%	YES
22672283	Ramps	US50 - WB off-ramp	Cameron Park Dr Interchange	619	399	-35.50%	±100.1%	YES
22732280	Ramps	US50 - WB loop on-ramp	Cameron Park Dr Interchange	270	285	5.69%	±135.3%	YES
22811990	Ramps	US50 - WB on-ramp	Cameron Park Dr Interchange	301	209	-30.65%	±129.9%	YES
19962273	Ramps	US50 - EB off-ramp	Cameron Park Dr Interchange	603	336	-44.25%	±101.0%	YES
22732264	Ramps	US50 - EB on-ramp	Cameron Park Dr Interchange	642	556	-13.45%	±98.7%	YES
19982299	Ramps	US50 - WB off-ramp	Ponderosa Rd Interchange	198	214	7.93%	±151.3%	YES
22962293	Ramps	US50 - WB loop on-ramp	Ponderosa Rd Interchange	397	471	18.78%	±117.6%	YES
19682266	Ramps	US50 - WB on-ramp	Ponderosa Rd Interchange	329	463	40.67%	±125.9%	YES
22652294	Ramps	US50 - EB off-ramp	Ponderosa Rd Interchange	738	595	-19.33%	±93.9%	YES
23011999	Ramps	US50 - EB on-ramp	Ponderosa Rd	190	170	-10.69%	±153.5%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
			Interchange					
23262327	Ramps	US50 - WB off-ramp	Shingle Springs Dr Interchange	57	59	3.32%	±237.7%	YES
23271997	Ramps	US50 - WB on-ramp	Shingle Springs Dr Interchange	73	1	-98.63%	±217.4%	YES
20002317	Ramps	US50 - EB off-ramp	Shingle Springs Dr Interchange	71	8	-88.79%	±219.2%	YES
23172312	Ramps	US50 - EB on-ramp	Shingle Springs Dr Interchange	48	83	74.42%	±253.9%	YES
23862389	Ramps	US50 - WB off-ramp	Red Hawk Interchange	79	139	75.09%	±210.9%	YES
23932391	Ramps	US50 - WB on-ramp	Red Hawk Interchange	79	91	14.63%	±210.9%	YES
23122389	Ramps	US50 - EB off-ramp	Red Hawk Interchange	79	95	19.67%	±210.9%	YES
23932387	Ramps	US50 - EB on-ramp	Red Hawk Interchange	79	73	-8.05%	±210.9%	YES
23762397	Ramps	US50 - WB off-ramp	Greenstone Rd Interchange	70	26	-62.75%	±221.0%	YES
23972385	Ramps	US50 - WB on-ramp	Greenstone Rd Interchange	119	163	37.02%	±182.1%	YES
23692372	Ramps	US50 - EB off-ramp	Greenstone Rd Interchange	99	78	-21.32%	±194.5%	YES
23722370	Ramps	US50 - EB on-ramp	Greenstone Rd Interchange	69	56	-18.84%	±221.9%	YES
19452425	Ramps	US50 - WB off-ramp	El Dorado Rd Interchange	107	125	16.75%	±189.2%	YES
24252375	Ramps	US50 - WB on-ramp	El Dorado Rd Interchange	139	118	-14.98%	±172.2%	YES
23712426	Ramps	US50 - EB off-ramp	El Dorado Rd Interchange	139	43	-69.02%	±172.2%	YES
24261946	Ramps	US50 - EB on-ramp	El Dorado Rd Interchange	87	104	19.21%	±203.8%	YES
26392650	Ramps	US50 - WB off-ramp	Missouri Flat Road	730	548	-24.89%	±94.3%	YES
26541944	Ramps	US50 - WB on-ramp	Missouri Flat Road	452	503	11.27%	±112.2%	YES
19472648	Ramps	US50 - EB off-ramp	Missouri Flat Road	539	389	-27.87%	±105.2%	YES
26482642	Ramps	US50 - EB on-ramp	Missouri Flat Road	761	422	-44.57%	±92.8%	YES
25212519	Ramps	US50 - WB off-ramp	Schnell School Rd.	87	49	-43.83%	±203.8%	YES
25192518	Ramps	US50 - WB on-ramp	Schnell School Rd.	270	219	-18.78%	±135.3%	YES
25302531	Ramps	US50 - EB off-ramp	Schnell School Rd.	270	0	-100.00%	±135.3%	YES
25312524	Ramps	US50 - EB on-ramp	Schnell School Rd.	167	71	-57.37%	±161.2%	YES
25262527	Ramps	US50 - WB off-ramp	Point View Dr.	18	12	-34.21%	±359.6%	YES
25272520	Ramps	US50 - WB on-ramp	Point View Dr.	167	365	119.16%	±161.2%	YES
25252528	Ramps	US50 - EB off-ramp	Point View Dr.	135	77	-42.89%	±174.0%	YES
25282529	Ramps	US50 - EB on-ramp	Point View Dr.	33	11	-66.17%	±291.5%	YES
25332534	Ramps	US50 - WB off-ramp	Newtown Rd.	16	36	126.96%	±378.3%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
25352537	Ramps	US50 - EB on-ramp	Newtown Rd.	16	24	51.31%	±378.3%	YES
28692876	Ramps	US50 - WB off-ramp	E. Camino	36	32	-12.29%	±279.6%	YES
28772470	Ramps	US50 - WB on-ramp	E. Camino	87	23	-73.64%	±203.8%	YES
28722873	Ramps	US50 - EB off-ramp	E. Camino	87	19	-78.22%	±203.8%	YES
4872820	Ramps	US50 - EB on-ramp	E. Camino	41	140	239.47%	±267.4%	YES
28282905	Ramps	US50 - WB off-ramp	Sawmill	1	35	4313.16%	±1121.9 %	NO
29052862	Ramps	US50 - WB on-ramp	Sawmill	119	341	186.65%	±182.1%	NO
28952903	Ramps	US50 - EB off-ramp	Sawmill	135	70	-48.08%	±174.0%	YES
29032829	Ramps	US50 - EB on -ramp	Sawmill	135	32	-76.27%	±174.0%	YES
30973101	Ramps	US50 - WB off-ramp	Sly Park Road	38	30	-21.19%	±275.3%	YES
31011020	Ramps	US50 - WB on-ramp	Sly Park Road	230	567	146.53%	±143.3%	NO
10193095	Ramps	US50 - EB off-ramp	Sly Park Road	238	140	-41.16%	±141.6%	YES
30953091	Ramps	US50 - EB on-ramp	Sly Park Road	41	38	-7.86%	±267.4%	YES
22771975	Major Arterial	Cameron Park Dr	300 yds S of Hacienda Dr	1,029	1,285	24.88%	±83.2%	YES
22381983	Major Arterial	Cameron Park Dr	200 ft N of Oxford Rd	1,080	1,071	-0.83%	±81.8%	YES
20922089	Major Arterial	El Dorado Hills Bl	200 ft S of Saratoga Wy	2,094	2,900	38.49%	±64.3%	YES
19891988	Major Arterial	El Dorado Hills Bl	100 ft S of Wilson Bl	1,862	1,509	-18.96%	±67.1%	YES
21991989	Major Arterial	El Dorado Hills Bl	100 ft S of Olson Ln	1,834	1,343	-26.77%	±67.5%	YES
22022199	Major Arterial	El Dorado Hills Bl	10 ft N of Olson Ln	1,787	1,343	-24.85%	±68.1%	YES
31282169	Major Arterial	El Dorado Hills Bl	100 ft N of Harvard Wy	1,056	1,278	21.02%	±82.4%	YES
21872159	Major Arterial	El Dorado Hills Bl	300 ft S of Francisco Dr	994	1,079	8.55%	±84.3%	YES
21842161	Major Arterial	El Dorado Hills Bl	100 ft S of Green Vly Rd	322	465	44.41%	±126.9%	YES
21902185	Major Arterial	Francisco Dr	200 ft S of Green Valley Rd	949	757	-20.23%	±85.7%	YES
21822179	Major Arterial	Green Valley Rd	200 ft W of Mormon Island Dr	1,872	2,122	13.35%	±67.0%	YES
21822176	Major Arterial	Green Valley Rd	200 ft E of Mormon Island Dr	1,862	2,122	13.96%	±67.1%	YES
21892185	Major Arterial	Green Valley Rd	200 ft E of Francisco Dr	1,057	1,449	37.09%	±82.4%	YES
20852078	Major Arterial	Latrobe Rd	300 ft N of White Rock Rd	2,000	2,774	38.70%	±65.4%	YES
26202618	Major Arterial	Missouri Flat Rd	100 ft N of SR 49	1,049	1,158	10.39%	±82.6%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
26722570	Major Arterial	Missouri Flat Rd	100 ft S of China Garden Rd	1,252	1,259	0.56%	±77.5%	YES
26702668	Major Arterial	Missouri Flat Rd	S of Forni Rd	1,471	1,316	-10.54%	±73.1%	YES
26682644	Major Arterial	Missouri Flat Rd	400 yds N of Forni Rd	2,041	1,583	-22.44%	±64.9%	YES
26562654	Major Arterial	Missouri Flat Rd	100 ft S of Plaza Dr	1,344	1,113	-17.19%	±75.5%	YES
26562655	Major Arterial	Missouri Flat Rd	100 ft N of Plaza Dr	586	1,113	89.93%	±102.1%	YES
26271927	Major Arterial	Missouri Flat Rd	300 ft S of El Dorado Rd	643	415	-35.46%	±98.7%	YES
19681965	Major Arterial	North Shingle Rd	400 yds E of Ponderosa Rd	512	736	43.75%	±107.2%	YES
23532352	Major Arterial	North Shingle Rd	100 ft S of Green Valley Rd	384	519	35.16%	±119.0%	YES
22982294	Major Arterial	South Shingle Rd	100 ft S of Mother Lode Dr	718	1,035	44.15%	±94.8%	YES
22822279	Minor Arterial	Cameron Park Dr	100 ft N of Robin Ln	520	980	88.46%	±106.6%	YES
22731970	Minor Arterial	Cameron Park Dr	100 ft N of Coach Ln	1,369	1,527	11.54%	±75.0%	YES
22462237	Minor Arterial	Cameron Park Dr	200 yds N of Mira Loma Dr	922	840	-8.89%	±86.6%	YES
22312220	Minor Arterial	Cameron Park Dr	200 yds S of Green Valley Rd	683	830	21.52%	±96.6%	YES
21312129	Minor Arterial	Country Club Dr	0.1 mi E of Merrychase Dr	351	491	39.89%	±123.0%	YES
22822276	Minor Arterial	Durock Rd	50 ft S of Robin Ln	378	661	74.87%	±119.7%	YES
22842277	Minor Arterial	Palmer Dr	100 ft E of Cameron Park Dr	567	520	-8.29%	±103.3%	YES
21952006	Minor Arterial	Serrano Pkwy	450 ft E of Silva Valley Pkwy	1,075	1,327	23.44%	±81.9%	YES
20062005	Minor Arterial	Silva Valley Pkwy	100 ft S of Serrano Pkwy	850	792	-6.82%	±89.2%	YES
31272006	Minor Arterial	Silva Valley Pkwy	100 ft N of Serrano Pkwy	1,272	538	-57.70%	±77.1%	YES
22032197	Minor Arterial	Silva Valley Pkwy	100 ft S of Harvard Wy	1,045	521	-50.14%	±82.8%	YES
21972196	Minor Arterial	Silva Valley Pkwy	100 ft N of Harvard Wy	788	293	-62.82%	±91.7%	YES
22072162	Minor Arterial	Silva Valley Pkwy	100 ft S of Green Valley Rd	585	489	-16.41%	±102.1%	YES
21722171	Minor Arterial	Sophia Pkwy	200 ft S of Green Valley Rd	451	813	80.27%	±112.3%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
20882085	Minor Arterial	White Rock Rd	100 ft E of Latrobe Rd	757	1,107	46.24%	±93.0%	YES
28822856	Collector	Barkley Rd	50 ft N of Carson Rd	68	180	164.71%	±223.1%	YES
27392738	Collector	Bedford Av	At City Limits	34	53	55.88%	±286.8%	YES
25572511	Collector	Big Cut Rd	100 ft N of Pleasant Vly Rd	70	60	-14.29%	±220.7%	YES
27622452	Collector	Bucks Bar Rd	50 ft S of Pleasant Vly Rd	384	442	15.10%	±119.0%	YES
28112805	Collector	Bucks Bar Rd	300 ft N of Mt Aukum Rd	296	397	34.12%	±130.8%	YES
26232930	Collector	China Garden Rd	150 ft N of SR 49	77	18	-76.62%	±213.2%	YES
26722671	Collector	China Garden Rd	200 yds E of Missouri Flat Rd	237	242	2.11%	±141.8%	YES
24042403	Collector	El Dorado Rd	200 yds N of Pleasant Vly Rd	214	103	-51.87%	±147.1%	YES
26132597	Collector	Enterprise Dr	100 ft E of Forni Rd	220	43	-80.45%	±145.7%	YES
28092477	Collector	Fairplay Rd	100 ft S of Mt Aukum Rd	153	206	34.64%	±166.2%	YES
31023087	Collector	Forebay Rd	100 ft N of Pony Express Tr	121	226	86.78%	±181.0%	YES
26002599	Collector	Forni Rd	200 ft N of SR 49	336	30	-91.07%	±124.9%	YES
26682667	Collector	Forni Rd	300 ft W of Missouri Flat Rd	504	379	-24.80%	±107.8%	YES
26342625	Collector	Forni Rd	30 ft W of Arroyo Vista Wy	98	107	9.18%	±195.3%	YES
27042588	Collector	Forni Rd	W of P-ville Dr @ City Limits	70	124	77.14%	±220.7%	YES
22892255	Collector	French Creek Rd	300 ft S of Mother Lode Dr	200	252	26.00%	±150.8%	YES
30233022	Collector	Garden Valley Rd	300 ft N of SR 193	41	79	92.68%	±268.0%	YES
29922990	Collector	Garden Valley Rd	0.45 mi S of Marshall Rd	140	66	-52.86%	±171.6%	YES
29932991	Collector	Greenwood Rd	100 ft W of Marshall Rd	79	109	37.97%	±211.2%	YES
29742973	Collector	Greenwood Rd	0.03 mi S of SR 193	62	6	-90.32%	±230.7%	YES
22012169	Collector	Harvard Wy	0.15 mi E of El Dorado Hills Bl	925	606	-34.49%	±86.5%	YES
21972194	Collector	Harvard Wy	200 ft W of Silva Valley Pkwy	824	398	-51.70%	±90.2%	YES
30613060	Collector	Icehouse Rd	300 ft N of US 50	81	11	-86.42%	±209.3%	YES
26222583	Collector	Lime Kiln Rd	100 ft E of China Garden Rd	126	242	92.06%	±178.3%	YES
22382009	Collector	Meder Rd	300 ft E of Cameron Park Dr	590	478	-18.98%	±101.8%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
23462336	Collector	Meder Rd	200 yds W of Ponderosa Rd	493	287	-41.78%	±108.7%	YES
27772773	Collector	Mosquito Rd	300 ft S of Union Ridge Rd	151	188	24.50%	±167.0%	YES
27672765	Collector	Mosquito Rd	At American River Br	95	130	36.84%	±197.6%	YES
28432831	Collector	Newtown Rd	200 yds N of Pleasant Vly Rd	247	312	26.32%	±139.7%	YES
27552753	Collector	Oak Hill Rd	300 ft S of Pleasant Vly Rd	134	109	-18.66%	±174.4%	YES
26022595	Collector	Patterson Dr	200 ft S of Pleasant Vly Rd	267	425	59.18%	±135.8%	YES
23462345	Collector	Ponderosa Rd	100 ft N of Meder Rd	134	101	-24.63%	±174.4%	YES
23562351	Collector	Ponderosa Rd	100 ft S of Green Valley Rd	105	93	-11.43%	±190.5%	YES
27212509	Collector	Rock Creek Rd	100 ft E of SR 193	18	1	-94.44%	±361.3%	YES
28132812	Collector	Sand Ridge Rd	100 ft W of Bucks Bar Rd	103	96	-6.80%	±191.9%	YES
20061972	Collector	Serrano Pkwy	250 ft W of Silva Valley Pkwy	774	897	15.89%	±92.3%	YES
29712969	Collector	Sliger Mine Rd	50 ft N of SR 193	48	60	25.00%	±253.1%	YES
28502840	Collector	Snows Rd	400 ft N of Newtown Rd	75	119	58.67%	±215.3%	YES
29012852	Collector	Snows Rd	200 ft S of Carson Rd	283	160	-43.46%	±132.9%	YES
21091980	Collector	South Shingle Rd	0.5 mi E of Latrobe Rd	130	220	69.23%	±176.3%	YES
22712270	Collector	South Shingle Rd	100 ft N of Barnett Ranch Rd	193	281	45.60%	±152.8%	YES
22222220	Collector	Starbuck Rd	110 ft N of Green Valley Rd	101	111	9.90%	±193.2%	YES
27692768	Collector	Union Ridge Rd	100 ft W of Hassler Rd	37	30	-18.92%	±278.2%	YES
30473016	Collector	Wentworth Springs Rd	100 ft W of Quintette Rd	40	39	-2.50%	±270.4%	YES
20792077	Collector	White Rock Rd	100 ft S of Silva Valley Pkwy	688	746	8.43%	±96.3%	YES
21192021	Rural Arterial	Bass Lake Rd	400 yd N of Country Club Dr	928	759	-18.21%	±86.4%	YES
22402221	Rural Arterial	Bass Lake Rd	100 yd S of Green Vly Rd	507	737	45.36%	±107.6%	YES
29641014	Rural Arterial	Bassi Rd	200 ft W of Lotus Rd	84	41	-51.19%	±206.6%	YES
25122505	Rural Arterial	Broadway	At City Limits	345	556	61.16%	±123.7%	YES
21342133	Rural Arterial	Cambridge Rd	At US 50 OC	619	265	-57.19%	±100.1%	YES
21262125	Rural Arterial	Cambridge Rd	300 ft S of Country Club Dr.	578	758	31.14%	±102.6%	YES
21392125	Rural Arterial	Cambridge Rd	100 ft N of Country Club Dr	520	666	28.08%	±106.6%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
2242236	Rural Arterial	Cambridge Rd	300 yds N of Oxford Rd	331	538	62.54%	±125.6%	YES
22412215	Rural Arterial	Cambridge Rd	300 ft S of Green Valley Rd	345	537	55.65%	±123.7%	YES
27762774	Rural Arterial	Carson Rd	0.6 Mi E of City Limits	118	113	-4.24%	±182.6%	YES
28752870	Rural Arterial	Carson Rd	300 yds E of Gatlin Rd	78	58	-25.64%	±212.2%	YES
28672864	Rural Arterial	Carson Rd	At Carson Ct	106	30	-71.70%	±189.9%	YES
28842856	Rural Arterial	Carson Rd	100 ft W of Barkley Rd	211	346	63.98%	±147.9%	YES
28962892	Rural Arterial	Carson Rd	100 ft E of Ponderosa Wy	166	154	-7.23%	±161.3%	YES
27522749	Rural Arterial	Cedar Ravine Rd	0.1 Mi N of Pleasant Vly Rd	170	179	5.29%	±160.0%	YES
27592544	Rural Arterial	Cedar Ravine Rd	0.25 Mi S of Country Club Dr	216	220	1.85%	±146.6%	YES
27312730	Rural Arterial	Cold Springs Rd	At City Limits	270	394	45.93%	±135.2%	YES
24412440	Rural Arterial	Cold Springs Rd	300 yds S of Gold Hill Rd	194	214	10.31%	±152.5%	YES
24472445	Rural Arterial	Cold Springs Rd	100 ft S of SR 153	123	193	56.91%	±179.9%	YES
21112021	Rural Arterial	Country Club Dr	0.4 mi E of Bass Lake Rd	441	607	37.64%	±113.2%	YES
21282124	Rural Arterial	Country Club Dr	0.15 mi W of Knollwood Dr	480	257	-46.46%	±109.8%	YES
21362125	Rural Arterial	Country Club Dr	300 yds E of Cambridge Rd	238	427	79.41%	±141.6%	YES
22832278	Rural Arterial	Country Club Dr	0.2 mi W of Cameron Park Dr	225	383	70.22%	±144.5%	YES
22982297	Rural Arterial	Durock Rd	50 ft W of S Shingle Rd	359	666	85.52%	±122.0%	YES
24261910	Rural Arterial	El Dorado Rd	0.2 mi S of US 50	443	382	-13.77%	±113.0%	YES
24282425	Rural Arterial	El Dorado Rd	0.11 N of US 50	156	174	11.54%	±165.0%	YES
19391927	Rural Arterial	El Dorado Rd	50 ft N of Missouri Flat Rd	151	197	30.46%	±167.0%	YES
21852177	Rural Arterial	Francisco Dr	200 ft N of Green Valley Rd	899	1,133	26.03%	±87.4%	YES
21922191	Rural Arterial	Francisco Dr	100 ft S of Sheffield Dr	164	104	-36.59%	±162.1%	YES
21932192	Rural Arterial	Francisco Dr	300 yds N of Sheffield Dr	60	104	73.33%	±233.4%	YES
23602324	Rural Arterial	Gold Hill Rd	100 ft E of Lotus Rd	225	152	-32.44%	±144.5%	YES
24432440	Rural Arterial	Gold Hill Rd	200 ft W of Cold Springs Rd	222	141	-36.49%	±145.2%	YES
24382437	Rural Arterial	Gold Hill Rd	100 yds E of Cold Springs Rd	54	56	3.70%	±242.5%	YES
21711046	Rural Arterial	Green Valley Rd	200 ft W of Sophia Pkwy	1,728	1,674	-3.13%	±68.9%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
21812180	Rural Arterial	Green Valley Rd	200 ft E of Sophia Pkwy	1,732	2,135	23.27%	±68.9%	YES
21622161	Rural Arterial	Green Valley Rd	300 ft W of Silva Valley Pkwy	971	1,398	43.98%	±85.0%	YES
22212214	Rural Arterial	Green Valley Rd	200 ft W of Bass Lake Rd	1,195	1,005	-15.90%	±78.8%	YES
22212215	Rural Arterial	Green Valley Rd	300 ft W of Cameron Park Dr	925	1,460	57.84%	±86.5%	YES
22502218	Rural Arterial	Green Valley Rd	300 ft E of La Crescenta Dr	613	557	-9.14%	±100.4%	YES
23412334	Rural Arterial	Green Valley Rd	500 ft E of Deer Valley Rd (E)	363	455	25.34%	±121.5%	YES
23592350	Rural Arterial	Green Valley Rd	300 ft W of Lotus Rd	570	809	41.93%	±103.1%	YES
24012399	Rural Arterial	Green Valley Rd	100 ft W of Greenstone Rd	302	300	-0.66%	±129.8%	YES
24232422	Rural Arterial	Green Valley Rd	400 ft W of Campus Dr	366	321	-12.30%	±121.1%	YES
24232420	Rural Arterial	Green Valley Rd	200 ft W of Missouri Flat Rd	711	321	-54.85%	±95.2%	YES
19301929	Rural Arterial	Green Valley Rd	100 ft W of Weber Creek Br	231	138	-40.26%	±143.1%	YES
23952383	Rural Arterial	Greenstone Rd	300 ft N of Mother Lode Dr	84	68	-19.05%	±206.6%	YES
23972368	Rural Arterial	Greenstone Rd	0.20 mi N of US 50	208	282	35.58%	±148.7%	YES
28062805	Rural Arterial	Grizzly Flat Rd	200 yds E of Mt Aukum Rd	157	179	14.01%	±164.6%	YES
21662160	Rural Arterial	Lake Hills Dr	100 ft N of Salmon Falls Rd	251	176	-29.88%	±138.9%	YES
19631962	Rural Arterial	Latrobe Rd	250 ft N of County Line	235	476	102.55%	±142.2%	YES
21081980	Rural Arterial	Latrobe Rd	1.5 mi N of S Shingle Rd	253	504	99.21%	±138.5%	YES
19641963	Rural Arterial	Latrobe Rd	At Deer Creek Bridge	329	476	44.68%	±125.9%	YES
20722025	Rural Arterial	Latrobe Rd	100 ft S of Investment Bl	381	615	61.42%	±119.3%	YES
20732072	Rural Arterial	Latrobe Rd	100 ft N of Investment Bl	654	537	-17.89%	±98.1%	YES
20422041	Rural Arterial	Latrobe Rd	100 ft N of Golden Foothill Pw	1,745	1,427	-18.22%	±68.7%	YES
23572350	Rural Arterial	Lotus Rd	300 ft N of Green Valley Rd	470	805	71.28%	±110.6%	YES
23602314	Rural Arterial	Lotus Rd	300 ft S of Thompson Hill Rd	306	491	60.46%	±129.2%	YES
29872984	Rural Arterial	Lotus Rd	0.25 mi S of SR 49	264	470	78.03%	±136.3%	YES
23622360	Rural Arterial	Luneman Rd	100 ft W of Lotus Rd	272	239	-12.13%	±134.9%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
29852968	Rural Arterial	Marshall Rd	200 yds E of SR 49	263	279	6.08%	±136.5%	YES
29942992	Rural Arterial	Marshall Rd	300 ft E of Garden Valley Rd	430	392	-8.84%	±114.2%	YES
30353034	Rural Arterial	Marshall Rd	300 yds S of Lower Main St	38	255	571.05%	±275.5%	NO
19271926	Rural Arterial	Missouri Flat Rd	300 ft N of El Dorado Rd	650	271	-58.31%	±98.3%	YES
30773075	Rural Arterial	Mormon Emigrant Tr	100 ft E of Sly Park Rd	60	169	181.67%	±233.4%	YES
25402539	Rural Arterial	Mosquito Rd	At City Limits	268	480	79.10%	±135.6%	YES
23002287	Rural Arterial	Mother Lode Dr	200 ft W of Sunset Ln	913	1,283	40.53%	±86.9%	YES
24122408	Rural Arterial	Mother Lode Dr	400 yds W of Pleasant Valley Rd	571	818	43.26%	±103.0%	YES
24122409	Rural Arterial	Mother Lode Dr	0.43 mi E of Pleasant Valley Rd	239	171	-28.45%	±141.4%	YES
1922668	Rural Arterial	Mt Aukum Rd	0.25 mi N of County Line	124	21	-83.06%	±179.4%	YES
28082805	Rural Arterial	Mt Aukum Rd	300 ft S of Bucks Bar Rd	295	385	30.51%	±131.0%	YES
28472846	Rural Arterial	Mt Aukum Rd	300 ft S of Pleasant Vly Rd	197	316	60.41%	±151.6%	YES
29832980	Rural Arterial	Mt Murphy Rd	50 ft S of Marshall Rd	85	210	147.06%	±205.7%	YES
29881010	Rural Arterial	Mt Murphy Rd	200 yds N of SR 49	20	320	1500.00%	±347.8%	NO
24632455	Rural Arterial	Newtown Rd	200 yds N of Pioneer Hill Rd	201	401	99.50%	±150.5%	YES
25472546	Rural Arterial	Newtown Rd	100 ft E of Broadway	283	466	64.66%	±132.9%	YES
20082007	Rural Arterial	Old Frenchtown Rd	400 yds S of Mother Lode Dr	88	151	71.59%	±203.1%	YES
25002478	Rural Arterial	Omo Ranch Rd	100 ft E of Mt Aukum Rd	63	55	-12.70%	±229.3%	YES
22442233	Rural Arterial	Oxford Rd	50 ft E of Salida Wy	294	515	75.17%	±131.1%	YES
24122405	Rural Arterial	Pleasant Valley Rd	200 yds E of Mother Lode Dr	442	647	46.38%	±113.1%	YES
26782579	Rural Arterial	Pleasant Valley Rd	200 yds E of SR 49 (E)	1,028	1,345	30.84%	±83.2%	YES
27532506	Rural Arterial	Pleasant Valley Rd	300 ft W of Oak Hill Rd	855	862	0.82%	±89.0%	YES
27632749	Rural Arterial	Pleasant Valley Rd	100 ft E of Cedar Ravine Rd	802	788	-1.75%	±91.1%	YES
24612457	Rural Arterial	Pleasant Valley Rd	0.10 mi E of Bucks Bar Rd	529	368	-30.43%	±105.9%	YES
28432839	Rural Arterial	Pleasant Valley Rd	0.40 mi E of Newtown Rd	406	441	8.62%	±116.6%	YES
19841968	Rural Arterial	Ponderosa Rd	300 ft N of Wild Chaparral Dr	679	416	-38.73%	±96.8%	YES
29042896	Rural Arterial	Pony Express Tr	200 yds E of Carson	176	444	152.27%	±158.0%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
			Rd					
29182917	Rural Arterial	Pony Express Tr	300 ft E of Gilmore Rd	276	369	33.70%	±134.2%	YES
31043102	Rural Arterial	Pony Express Tr	300 ft W of Forebay Rd	351	346	-1.42%	±123.0%	YES
21632161	Rural Arterial	Salmon Falls Rd	50 ft S of Malcolm-Dixon Rd	564	1,137	101.60%	±103.5%	YES
21502149	Rural Arterial	Salmon Falls Rd	At New York Creek Bridge	198	636	221.21%	±151.3%	NO
29482943	Rural Arterial	Salmon Falls Rd	400 yds S of Pedro Hill Rd	115	418	263.48%	±184.3%	NO
29472946	Rural Arterial	Salmon Falls Rd	200 yds S of Rattlesnake Bar Rd	32	418	1206.25%	±293.2%	NO
24961935	Rural Arterial	Sand Ridge Rd	300 ft E of SR 49	50	93	86.00%	±249.4%	YES
22292152	Rural Arterial	Serrano Pkwy	300 ft W of Bass Lake Rd	369	668	81.03%	±120.7%	YES
23182317	Rural Arterial	Shingle Springs Dr	0.20 mi S of US 50	420	123	-70.71%	±115.2%	YES
28462823	Rural Arterial	Sly Park Rd	0.35 mi E of Mt Aukum Rd	241	249	3.32%	±140.9%	YES
30783077	Rural Arterial	Sly Park Rd	1.62 mi W of Mormon Emigrant Tr	149	246	65.10%	±167.8%	YES
30773073	Rural Arterial	Sly Park Rd	0.35 mi E of Mormon Emigrant Tr	257	391	52.14%	±137.7%	YES
31073094	Rural Arterial	Sly Park Rd	100 ft S of Gold Ridge Tr (N)	306	535	74.84%	±129.2%	YES
31033101	Rural Arterial	Sly Park Rd	100 ft S of Pony Express Tr	591	502	-15.06%	±101.8%	YES
22902288	Rural Arterial	South Shingle Rd	100 ft S of Sunset Ln	420	389	-7.38%	±115.2%	YES
26042603	Rural Arterial	Union Mine Rd	200 yds S of SR 49	286	195	-31.82%	±132.4%	YES
30293028	Rural Arterial	Wentworth Springs Rd	0.7 mi E of Main St	170	129	-24.12%	±160.0%	YES
20382037	Rural Arterial	White Rock Rd	At County Line	533	935	75.42%	±105.7%	YES
20872086	Rural Arterial	White Rock Rd	100 ft W of Latrobe Rd	708	1,195	68.79%	±95.3%	YES

Exhibit 15 – PM Peak Hour Roadway Link Validation

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
14331434	Freeways	US50 - EB GP	W. of Zinfandel Dr	6,693	6,494	-2.98%	±42.2%	YES
14301431	Freeways	US50 - WB GP	W. of Zinfandel Dr	6,048	6,392	5.68%	±43.8%	YES
12691270	Freeways	US50 - EB GP	E. of Zinfandel Dr	6,635	5,988	-9.75%	±42.3%	YES
12711272	Freeways	US50 - WB GP	E. of Zinfandel Dr	4,569	4,836	5.84%	±48.4%	YES
15181211	Freeways	US50 - EB GP	W. of Hazel Ave	5,543	5,486	-1.02%	±45.2%	YES
12101514	Freeways	US50 - WB GP	W. of Hazel Ave	3,791	4,174	10.12%	±51.8%	YES
15191205	Freeways	US50 - EB HOV	W. of Hazel Ave	3,182	1,034	-67.51%	±55.2%	NO
12081513	Freeways	US50 - WB HOV	W. of Hazel Ave	1,566	776	-50.45%	±71.5%	YES
15651764	Freeways	US50 - EB GP	Iron Point Rd	3,182	4,538	42.59%	±55.2%	YES
17691566	Freeways	US50 - WB GP	Iron Point Rd	1,566	2,852	82.10%	±71.5%	NO
15631763	Freeways	US50 - EB HOV	Iron Point Rd	3,680	692	-81.19%	±52.4%	NO
17701568	Freeways	US50 - WB HOV	Iron Point Rd	2,282	403	-82.34%	±62.3%	NO
18051806	Freeways	US50 - EB GP	Prairie City	3,680	4,023	9.33%	±52.4%	YES
18021803	Freeways	US50 - WB GP	Prairie City	2,282	2,274	-0.35%	±62.3%	YES
17431795	Freeways	US50 - EB HOV	Prairie City	3,555	820	-76.94%	±53.1%	NO
18041738	Freeways	US50 - WB HOV	Prairie City	2,135	465	-78.22%	±63.9%	NO
20552065	Freeways	US50 - EB GP	W. of Latrobe	3,555	4,608	29.61%	±53.1%	YES
20642059	Freeways	US50 - WB GP	W. of Latrobe	2,135	2,835	32.79%	±63.9%	YES
10642049	Freeways	US50 - EB HOV	W. of Latrobe	797	665	-16.58%	±91.3%	YES
20521072	Freeways	US50 - WB HOV	W. of Latrobe	797	478	-40.04%	±91.3%	YES
20262027	Freeways	US50 - EB GP	W. of Bass Lake	3,626	4,115	13.49%	±52.7%	YES
20232024	Freeways	US50 - WB GP	W. of Bass Lake	2,108	2,336	10.82%	±64.2%	YES
19951996	Freeways	US50 - EB GP	W. of Cameron Park	3,166	3,062	-3.27%	±55.3%	YES
19901991	Freeways	US50 - WB GP	W. of Cameron Park	2,124	2,091	-1.56%	±64.0%	YES
22642265	Freeways	US50 - EB GP	W. of Ponderosa	2,932	3,098	5.65%	±56.9%	YES
22662267	Freeways	US50 - WB GP	W. of Ponderosa	2,700	2,083	-22.85%	±58.6%	YES
19992000	Freeways	US50 - EB GP	W. of Shingle Springs	2,332	2,412	3.44%	±61.8%	YES
19971998	Freeways	US50 - WB GP	W. of Shingle Springs	1,851	1,712	-7.50%	±67.3%	YES
23872369	Freeways	US50 - EB GP	W. of Greenstone	2,220	2,484	11.87%	±63.0%	YES
23852386	Freeways	US50 - WB GP	W. of Greenstone	1,707	1,790	4.84%	±69.3%	YES
23702371	Freeways	US50 - EB GP	Greenstone	2,159	2,365	9.57%	±63.6%	YES
23752376	Freeways	US50 - WB GP	Greenstone	1,704	1,743	2.30%	±69.3%	YES
19461947	Freeways	US50 - EB GP	Missouri Flat	2,039	2,372	16.33%	±64.9%	YES
19441945	Freeways	US50 - WB GP	Missouri Flat	1,652	1,814	9.79%	±70.1%	YES
25722573	Freeways	US50 - EB GP	W. of Placerville	1,664	2,072	24.55%	±69.9%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
25742575	Freeways	US50 - WB GP	W. of Placerville	1,439	1,407	-2.19%	±73.7%	YES
20912092	Ramps	US50 - WB off-ramp	EDH Blvd/Latrobe Rd Interchange	569	483	-15.05%	±103.2%	YES
20922101	Ramps	US50 - WB on-ramp	EDH Blvd/Latrobe Rd Interchange	1,378	1,459	5.86%	±74.8%	YES
20942095	Ramps	US50 - EB loop off-amp	EDH Blvd/Latrobe Rd Interchange	749	910	21.42%	±93.4%	YES
21002080	Ramps	US50 - EB off-ramp	EDH Blvd/Latrobe Rd Interchange	818	1,062	29.77%	±90.4%	YES
208015493	Ramps	US50 - EB on-ramp	EDH Blvd/Latrobe Rd Interchange	560	815	45.56%	±103.8%	YES
21162118	Ramps	US50 - WB off-ramp	Bass Lake Rd Interchange	112	148	32.16%	±186.1%	YES
21202023	Ramps	US50 - WB on-ramp	Bass Lake Rd Interchange	439	328	-25.34%	±113.3%	YES
154952110	Ramps	US50 - EB off-ramp	Bass Lake Rd Interchange	457	697	52.67%	±111.8%	YES
21102113	Ramps	US50 - EB on-ramp	Bass Lake Rd Interchange	112	88	-21.42%	±186.1%	YES
19912123	Ramps	US50 - WB off-ramp	Cambridge Rd Interchange	388	126	-67.50%	±118.6%	YES
21302115	Ramps	US50 - WB on-ramp	Cambridge Rd Interchange	396	191	-51.80%	±117.7%	YES
21142122	Ramps	US50 - EB off-ramp	Cambridge Rd Interchange	353	490	38.74%	±122.7%	YES
21271995	Ramps	US50 - EB on-ramp	Cambridge Rd Interchange	353	46	-86.98%	±122.7%	YES
22672283	Ramps	US50 - WB off-ramp	Cameron Park Dr Interchange	672	437	-34.96%	±97.1%	YES
22732280	Ramps	US50 - WB loop on-ramp	Cameron Park Dr Interchange	293	318	8.58%	±131.3%	YES
22811990	Ramps	US50 - WB on-ramp	Cameron Park Dr Interchange	327	126	-61.51%	±126.1%	YES
19962273	Ramps	US50 - EB off-ramp	Cameron Park Dr Interchange	655	522	-20.27%	±98.1%	YES
22732264	Ramps	US50 - EB on-ramp	Cameron Park Dr Interchange	698	558	-20.03%	±95.8%	YES
19982299	Ramps	US50 - WB off-ramp	Ponderosa Rd Interchange	215	214	-0.63%	±146.8%	YES
22962293	Ramps	US50 - WB loop on-ramp	Ponderosa Rd Interchange	431	327	-24.08%	±114.2%	YES
19682266	Ramps	US50 - WB on-ramp	Ponderosa Rd Interchange	357	259	-27.55%	±122.1%	YES
22652294	Ramps	US50 - EB off-ramp	Ponderosa Rd Interchange	801	923	15.21%	±91.1%	YES
23011999	Ramps	US50 - EB on-ramp	Ponderosa Rd	207	237	14.64%	±149.0%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
			Interchange					
23262327	Ramps	US50 - WB off-ramp	Shingle Springs Dr Interchange	62	93	49.95%	±230.6%	YES
23271997	Ramps	US50 - WB on-ramp	Shingle Springs Dr Interchange	79	0	-100.00%	±211.0%	YES
20002317	Ramps	US50 - EB off-ramp	Shingle Springs Dr Interchange	78	35	-54.86%	±212.7%	YES
23172312	Ramps	US50 - EB on-ramp	Shingle Springs Dr Interchange	52	68	31.57%	±246.4%	YES
23862389	Ramps	US50 - WB off-ramp	Red Hawk Interchange	86	112	29.89%	±204.6%	YES
23932391	Ramps	US50 - WB on-ramp	Red Hawk Interchange	86	126	46.12%	±204.6%	YES
23122389	Ramps	US50 - EB off-ramp	Red Hawk Interchange	86	123	42.64%	±204.6%	YES
23932387	Ramps	US50 - EB on-ramp	Red Hawk Interchange	86	161	86.71%	±204.6%	YES
23762397	Ramps	US50 - WB off-ramp	Greenstone Rd Interchange	76	64	-15.57%	±214.4%	YES
23972385	Ramps	US50 - WB on-ramp	Greenstone Rd Interchange	129	111	-14.10%	±176.7%	YES
23692372	Ramps	US50 - EB off-ramp	Greenstone Rd Interchange	108	154	43.02%	±188.8%	YES
23722370	Ramps	US50 - EB on-ramp	Greenstone Rd Interchange	75	35	-53.30%	±215.3%	YES
19452425	Ramps	US50 - WB off-ramp	El Dorado Rd Interchange	116	161	38.44%	±183.6%	YES
24252375	Ramps	US50 - WB on-ramp	El Dorado Rd Interchange	151	90	-40.30%	±167.1%	YES
23712426	Ramps	US50 - EB off-ramp	El Dorado Rd Interchange	151	137	-9.12%	±167.1%	YES
24261946	Ramps	US50 - EB on-ramp	El Dorado Rd Interchange	95	144	51.97%	±197.7%	YES
26392650	Ramps	US50 - WB off-ramp	Missouri Flat Road	793	507	-36.03%	±91.5%	YES
26541944	Ramps	US50 - WB on-ramp	Missouri Flat Road	491	401	-18.33%	±108.9%	YES
19472648	Ramps	US50 - EB off-ramp	Missouri Flat Road	586	545	-6.96%	±102.1%	YES
26482642	Ramps	US50 - EB on-ramp	Missouri Flat Road	827	678	-18.01%	±90.1%	YES
25212519	Ramps	US50 - WB off-ramp	Schnell School Rd.	95	34	-64.12%	±197.7%	YES
25192518	Ramps	US50 - WB on-ramp	Schnell School Rd.	293	223	-23.86%	±131.3%	YES
25302531	Ramps	US50 - EB off-ramp	Schnell School Rd.	293	162	-44.69%	±131.3%	YES
25312524	Ramps	US50 - EB on-ramp	Schnell School Rd.	181	221	22.17%	±156.4%	YES
25262527	Ramps	US50 - WB off-ramp	Point View Dr.	20	0	-100.00%	±349.0%	YES
25272520	Ramps	US50 - WB on-ramp	Point View Dr.	181	178	-1.60%	±156.4%	YES
25252528	Ramps	US50 - EB off-ramp	Point View Dr.	146	249	70.03%	±168.9%	YES
25282529	Ramps	US50 - EB on-ramp	Point View Dr.	35	16	-54.70%	±282.9%	YES
25332534	Ramps	US50 - WB off-ramp	Newtown Rd.	17	40	132.17%	±367.1%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
25352537	Ramps	US50 - EB on-ramp	Newtown Rd.	17	34	97.35%	±367.1%	YES
28692876	Ramps	US50 - WB off-ramp	E. Camino	40	29	-26.81%	±271.3%	YES
28772470	Ramps	US50 - WB on-ramp	E. Camino	95	33	-65.17%	±197.7%	YES
28722873	Ramps	US50 - EB off-ramp	E. Camino	95	26	-72.56%	±197.7%	YES
28692876	Ramps	US50 - EB on-ramp	E. Camino	45	150	234.87%	±259.5%	YES
28282905	Ramps	US50 - WB off-ramp	Sawmill	1	22	2453.91%	±1088.8 %	NO
29052862	Ramps	US50 - WB on-ramp	Sawmill	129	158	22.28%	±176.7%	YES
28952903	Ramps	US50 - EB off-ramp	Sawmill	146	169	15.40%	±168.9%	YES
29032829	Ramps	US50 - EB on -ramp	Sawmill	146	51	-65.17%	±168.9%	YES
30973101	Ramps	US50 - WB off-ramp	Sly Park Road	41	45	8.83%	±267.2%	YES
31011020	Ramps	US50 - WB on-ramp	Sly Park Road	250	220	-11.93%	±139.1%	YES
10193095	Ramps	US50 - EB off-ramp	Sly Park Road	258	414	60.20%	±137.4%	YES
30953091	Ramps	US50 - EB on-ramp	Sly Park Road	45	37	-17.40%	±259.5%	YES
22771975	Major Arterial	Cameron Park Dr	300 yds S of Hacienda Dr	1,205	1,532	27.14%	±78.6%	YES
22381983	Major Arterial	Cameron Park Dr	200 ft N of Oxford Rd	1,370	1,190	-13.14%	±75.0%	YES
20922089	Major Arterial	El Dorado Hills Bl	200 ft S of Saratoga Wy	2,528	3,331	31.76%	±60.1%	YES
19891988	Major Arterial	El Dorado Hills Bl	100 ft S of Wilson Bl	1,802	1,769	-1.83%	±67.9%	YES
21991989	Major Arterial	El Dorado Hills Bl	100 ft S of Olson Ln	1,782	1,488	-16.50%	±68.2%	YES
22022199	Major Arterial	El Dorado Hills Bl	10 ft N of Olson Ln	1,591	1,488	-6.47%	±71.0%	YES
31282169	Major Arterial	El Dorado Hills Bl	100 ft N of Harvard Wy	1,479	1,412	-4.53%	±73.0%	YES
21872159	Major Arterial	El Dorado Hills Bl	300 ft S of Francisco Dr	1,336	1,217	-8.91%	±75.7%	YES
21842161	Major Arterial	El Dorado Hills Bl	100 ft S of Green Vly Rd	439	520	18.45%	±113.4%	YES
21902185	Major Arterial	Francisco Dr	200 ft S of Green Valley Rd	1,132	837	-26.06%	±80.4%	YES
21822179	Major Arterial	Green Valley Rd	200 ft W of Mormon Island Dr	2,462	1,889	-23.27%	±60.6%	YES
21822176	Major Arterial	Green Valley Rd	200 ft E of Mormon Island Dr	2,425	1,889	-22.10%	±61.0%	YES
21892185	Major Arterial	Green Valley Rd	200 ft E of Francisco Dr	1,654	1,249	-24.49%	±70.1%	YES
20852078	Major Arterial	Latrobe Rd	300 ft N of White Rock Rd	2,116	2,640	24.76%	±64.1%	YES
26202618	Major Arterial	Missouri Flat Rd	100 ft N of SR 49	1,218	1,346	10.51%	±78.3%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
26722570	Major Arterial	Missouri Flat Rd	100 ft S of China Garden Rd	1,577	1,478	-6.28%	±71.3%	YES
26702668	Major Arterial	Missouri Flat Rd	S of Forni Rd	1,846	1,550	-16.03%	±67.3%	YES
26682644	Major Arterial	Missouri Flat Rd	400 yds N of Forni Rd	2,650	1,878	-29.13%	±59.0%	YES
26562654	Major Arterial	Missouri Flat Rd	100 ft S of Plaza Dr	1,933	1,442	-25.40%	±66.2%	YES
26562655	Major Arterial	Missouri Flat Rd	100 ft N of Plaza Dr	654	1,442	120.49%	±98.1%	NO
26271927	Major Arterial	Missouri Flat Rd	300 ft S of El Dorado Rd	792	510	-35.61%	±91.5%	YES
19681965	Major Arterial	North Shingle Rd	400 yds E of Ponderosa Rd	648	737	13.73%	±98.4%	YES
23532352	Major Arterial	North Shingle Rd	100 ft S of Green Valley Rd	500	516	3.20%	±108.1%	YES
22982294	Major Arterial	South Shingle Rd	100 ft S of Mother Lode Dr	1,032	1,228	18.99%	±83.1%	YES
22822279	Minor Arterial	Cameron Park Dr	100 ft N of Robin Ln	823	1,367	66.10%	±90.2%	YES
22731970	Minor Arterial	Cameron Park Dr	100 ft N of Coach Ln	2,098	2,001	-4.62%	±64.3%	YES
22462237	Minor Arterial	Cameron Park Dr	200 yds N of Mira Loma Dr	1,241	973	-21.60%	±77.7%	YES
22312220	Minor Arterial	Cameron Park Dr	200 yds S of Green Valley Rd	805	925	14.91%	±91.0%	YES
21312129	Minor Arterial	Country Club Dr	0.1 mi E of Merrychase Dr	226	451	99.56%	±144.3%	YES
22822276	Minor Arterial	Durock Rd	50 ft S of Robin Ln	579	902	55.79%	±102.5%	YES
22842277	Minor Arterial	Palmer Dr	100 ft E of Cameron Park Dr	816	702	-13.97%	±90.5%	YES
21952006	Minor Arterial	Serrano Pkwy	450 ft E of Silva Valley Pkwy	930	1,178	26.67%	±86.3%	YES
20062005	Minor Arterial	Silva Valley Pkwy	100 ft S of Serrano Pkwy	642	765	19.16%	±98.8%	YES
31272006	Minor Arterial	Silva Valley Pkwy	100 ft N of Serrano Pkwy	899	551	-38.71%	±87.4%	YES
22032197	Minor Arterial	Silva Valley Pkwy	100 ft S of Harvard Wy	856	522	-39.02%	±89.0%	YES
21972196	Minor Arterial	Silva Valley Pkwy	100 ft N of Harvard Wy	625	329	-47.36%	±99.7%	YES
22072162	Minor Arterial	Silva Valley Pkwy	100 ft S of Green Valley Rd	532	519	-2.44%	±105.7%	YES
21722171	Minor Arterial	Sophia Pkwy	200 ft S of Green Valley Rd	592	546	-7.77%	±101.7%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
20882085	Minor Arterial	White Rock Rd	100 ft E of Latrobe Rd	1,381	1,199	-13.18%	±74.8%	YES
28822856	Collector	Barkley Rd	50 ft N of Carson Rd	78	228	192.31%	±212.2%	YES
27392738	Collector	Bedford Av	At City Limits	44	57	29.55%	±261.2%	YES
25572511	Collector	Big Cut Rd	100 ft N of Pleasant Vly Rd	86	62	-27.91%	±204.8%	YES
27622452	Collector	Bucks Bar Rd	50 ft S of Pleasant Vly Rd	388	451	16.24%	±118.6%	YES
28112805	Collector	Bucks Bar Rd	300 ft N of Mt Aukum Rd	293	407	38.91%	±131.3%	YES
26232930	Collector	China Garden Rd	150 ft N of SR 49	80	6	-92.50%	±210.3%	YES
26722671	Collector	China Garden Rd	200 yds E of Missouri Flat Rd	333	275	-17.42%	±125.3%	YES
24042403	Collector	El Dorado Rd	200 yds N of Pleasant Vly Rd	251	163	-35.06%	±138.9%	YES
26132597	Collector	Enterprise Dr	100 ft E of Forni Rd	315	52	-83.49%	±127.9%	YES
28092477	Collector	Fairplay Rd	100 ft S of Mt Aukum Rd	170	208	22.35%	±160.0%	YES
31023087	Collector	Forebay Rd	100 ft N of Pony Express Tr	171	253	47.95%	±159.6%	YES
26002599	Collector	Forni Rd	200 ft N of SR 49	334	52	-84.43%	±125.2%	YES
26682667	Collector	Forni Rd	300 ft W of Missouri Flat Rd	815	444	-45.52%	±90.6%	YES
26342625	Collector	Forni Rd	30 ft W of Arroyo Vista Wy	150	137	-8.67%	±167.4%	YES
27042588	Collector	Forni Rd	W of P-ville Dr @ City Limits	121	193	59.50%	±181.0%	YES
22892255	Collector	French Creek Rd	300 ft S of Mother Lode Dr	238	263	10.50%	±141.6%	YES
30233022	Collector	Garden Valley Rd	300 ft N of SR 193	41	85	107.32%	±268.0%	YES
29922990	Collector	Garden Valley Rd	0.45 mi S of Marshall Rd	117	60	-48.72%	±183.2%	YES
29932991	Collector	Greenwood Rd	100 ft W of Marshall Rd	110	109	-0.91%	±187.3%	YES
29742973	Collector	Greenwood Rd	0.03 mi S of SR 193	85	6	-92.94%	±205.7%	YES
22012169	Collector	Harvard Wy	0.15 mi E of El Dorado Hills Bl	733	559	-23.74%	±94.1%	YES
21972194	Collector	Harvard Wy	200 ft W of Silva Valley Pkwy	558	375	-32.80%	±103.9%	YES
30613060	Collector	Icehouse Rd	300 ft N of US 50	130	11	-91.54%	±176.3%	YES
26222583	Collector	Lime Kiln Rd	100 ft E of China Garden Rd	226	237	4.87%	±144.3%	YES
22382009	Collector	Meder Rd	300 ft E of Cameron Park Dr	581	442	-23.92%	±102.4%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
23462336	Collector	Meder Rd	200 yds W of Ponderosa Rd	506	315	-37.75%	±107.7%	YES
27772773	Collector	Mosquito Rd	300 ft S of Union Ridge Rd	149	192	28.86%	±167.8%	YES
27672765	Collector	Mosquito Rd	At American River Br	98	127	29.59%	±195.3%	YES
28432831	Collector	Newtown Rd	200 yds N of Pleasant Vly Rd	242	280	15.70%	±140.7%	YES
27552753	Collector	Oak Hill Rd	300 ft S of Pleasant Vly Rd	167	113	-32.34%	±161.0%	YES
26022595	Collector	Patterson Dr	200 ft S of Pleasant Vly Rd	367	454	23.71%	±121.0%	YES
23462345	Collector	Ponderosa Rd	100 ft N of Meder Rd	132	87	-34.09%	±175.3%	YES
23562351	Collector	Ponderosa Rd	100 ft S of Green Valley Rd	100	80	-20.00%	±193.9%	YES
27212509	Collector	Rock Creek Rd	100 ft E of SR 193	22	1	-95.45%	±335.9%	YES
28132812	Collector	Sand Ridge Rd	100 ft W of Bucks Bar Rd	101	101	0.00%	±193.2%	YES
20061972	Collector	Serrano Pkwy	250 ft W of Silva Valley Pkwy	588	842	43.20%	±102.0%	YES
29712969	Collector	Sliger Mine Rd	50 ft N of SR 193	67	58	-13.43%	±224.3%	YES
28502840	Collector	Snows Rd	400 ft N of Newtown Rd	90	132	46.67%	±201.5%	YES
29012852	Collector	Snows Rd	200 ft S of Carson Rd	243	159	-34.57%	±140.5%	YES
21091980	Collector	South Shingle Rd	0.5 mi E of Latrobe Rd	74	222	200.00%	±216.3%	YES
22712270	Collector	South Shingle Rd	100 ft N of Barnett Ranch Rd	227	309	36.12%	±144.0%	YES
22222220	Collector	Starbuck Rd	110 ft N of Green Valley Rd	147	127	-13.61%	±168.6%	YES
27692768	Collector	Union Ridge Rd	100 ft W of Hassler Rd	46	34	-26.09%	±257.0%	YES
30473016	Collector	Wentworth Springs Rd	100 ft W of Quintette Rd	64	37	-42.19%	±228.0%	YES
20792077	Collector	White Rock Rd	100 ft S of Silva Valley Pkwy	900	785	-12.78%	±87.4%	YES
21192021	Rural Arterial	Bass Lake Rd	400 yd N of Country Club Dr	876	853	-2.63%	±88.2%	YES
22402221	Rural Arterial	Bass Lake Rd	100 yd S of Green Vly Rd	450	735	63.33%	±112.4%	YES
29641014	Rural Arterial	Bassi Rd	200 ft W of Lotus Rd	103	50	-51.46%	±191.9%	YES
25122505	Rural Arterial	Broadway	At City Limits	347	571	64.55%	±123.5%	YES
21342133	Rural Arterial	Cambridge Rd	At US 50 OC	856	607	-29.09%	±89.0%	YES
21262125	Rural Arterial	Cambridge Rd	300 ft S of Country Club Dr.	753	879	16.73%	±93.2%	YES
21392125	Rural Arterial	Cambridge Rd	100 ft N of Country Club Dr	735	724	-1.50%	±94.0%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
2242236	Rural Arterial	Cambridge Rd	300 yds N of Oxford Rd	483	594	22.98%	±109.5%	YES
22412215	Rural Arterial	Cambridge Rd	300 ft S of Green Valley Rd	414	578	39.61%	±115.8%	YES
27762774	Rural Arterial	Carson Rd	0.6 Mi E of City Limits	173	127	-26.59%	±158.9%	YES
28752870	Rural Arterial	Carson Rd	300 yds E of Gatlin Rd	135	63	-53.33%	±173.9%	YES
28672864	Rural Arterial	Carson Rd	At Carson Ct	176	48	-72.73%	±158.0%	YES
28842856	Rural Arterial	Carson Rd	100 ft W of Barkley Rd	281	389	38.43%	±133.3%	YES
28962892	Rural Arterial	Carson Rd	100 ft E of Ponderosa Wy	219	176	-19.63%	±145.9%	YES
27522749	Rural Arterial	Cedar Ravine Rd	0.1 Mi N of Pleasant Vly Rd	168	194	15.48%	±160.6%	YES
27592544	Rural Arterial	Cedar Ravine Rd	0.25 Mi S of Country Club Dr	218	250	14.68%	±146.2%	YES
27312730	Rural Arterial	Cold Springs Rd	At City Limits	304	428	40.79%	±129.5%	YES
24412440	Rural Arterial	Cold Springs Rd	300 yds S of Gold Hill Rd	279	241	-13.62%	±133.6%	YES
24472445	Rural Arterial	Cold Springs Rd	100 ft S of SR 153	180	197	9.44%	±156.7%	YES
21112021	Rural Arterial	Country Club Dr	0.4 mi E of Bass Lake Rd	347	579	66.86%	±123.5%	YES
21282124	Rural Arterial	Country Club Dr	0.15 mi W of Knollwood Dr	311	316	1.61%	±128.5%	YES
21362125	Rural Arterial	Country Club Dr	300 yds E of Cambridge Rd	268	452	68.66%	±135.6%	YES
22832278	Rural Arterial	Country Club Dr	0.2 mi W of Cameron Park Dr	367	437	19.07%	±121.0%	YES
22982297	Rural Arterial	Durock Rd	50 ft W of S Shingle Rd	557	850	52.60%	±104.0%	YES
24261910	Rural Arterial	El Dorado Rd	0.2 mi S of US 50	501	495	-1.20%	±108.1%	YES
24282425	Rural Arterial	El Dorado Rd	0.11 N of US 50	200	260	30.00%	±150.8%	YES
19391927	Rural Arterial	El Dorado Rd	50 ft N of Missouri Flat Rd	259	230	-11.20%	±137.3%	YES
21852177	Rural Arterial	Francisco Dr	200 ft N of Green Valley Rd	1,205	1,209	0.33%	±78.6%	YES
21922191	Rural Arterial	Francisco Dr	100 ft S of Sheffield Dr	197	104	-47.21%	±151.6%	YES
21932192	Rural Arterial	Francisco Dr	300 yds N of Sheffield Dr	78	104	33.33%	±212.2%	YES
23602324	Rural Arterial	Gold Hill Rd	100 ft E of Lotus Rd	138	174	26.09%	±172.5%	YES
24432440	Rural Arterial	Gold Hill Rd	200 ft W of Cold Springs Rd	148	167	12.84%	±168.2%	YES
24382437	Rural Arterial	Gold Hill Rd	100 yds E of Cold Springs Rd	38	56	47.37%	±275.5%	YES
21711046	Rural Arterial	Green Valley Rd	200 ft W of Sophia Pkwy	2,051	1,705	-16.87%	±64.8%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
21812180	Rural Arterial	Green Valley Rd	200 ft E of Sophia Pkwy	2,350	1,906	-18.89%	±61.7%	YES
21622161	Rural Arterial	Green Valley Rd	300 ft W of Silva Valley Pkwy	1,120	1,420	26.79%	±80.7%	YES
22212214	Rural Arterial	Green Valley Rd	200 ft W of Bass Lake Rd	977	994	1.74%	±84.8%	YES
22212215	Rural Arterial	Green Valley Rd	300 ft W of Cameron Park Dr	941	1,473	56.54%	±86.0%	YES
22502218	Rural Arterial	Green Valley Rd	300 ft E of La Crescenta Dr	627	507	-19.14%	±99.6%	YES
23412334	Rural Arterial	Green Valley Rd	500 ft E of Deer Valley Rd (E)	420	426	1.43%	±115.2%	YES
23592350	Rural Arterial	Green Valley Rd	300 ft W of Lotus Rd	652	802	23.01%	±98.2%	YES
24012399	Rural Arterial	Green Valley Rd	100 ft W of Greenstone Rd	360	357	-0.83%	±121.8%	YES
24232422	Rural Arterial	Green Valley Rd	400 ft W of Campus Dr	419	366	-12.65%	±115.3%	YES
24232420	Rural Arterial	Green Valley Rd	200 ft W of Missouri Flat Rd	759	366	-51.78%	±92.9%	YES
19301929	Rural Arterial	Green Valley Rd	100 ft W of Weber Creek Br	305	198	-35.08%	±129.4%	YES
23952383	Rural Arterial	Greenstone Rd	300 ft N of Mother Lode Dr	108	69	-36.11%	±188.6%	YES
23972368	Rural Arterial	Greenstone Rd	0.20 mi N of US 50	219	320	46.12%	±145.9%	YES
28062805	Rural Arterial	Grizzly Flat Rd	200 yds E of Mt Aukum Rd	186	188	1.08%	±154.8%	YES
21662160	Rural Arterial	Lake Hills Dr	100 ft N of Salmon Falls Rd	259	170	-34.36%	±137.3%	YES
19631962	Rural Arterial	Latrobe Rd	250 ft N of County Line	298	530	77.85%	±130.5%	YES
21081980	Rural Arterial	Latrobe Rd	1.5 mi N of S Shingle Rd	310	525	69.35%	±128.6%	YES
19641963	Rural Arterial	Latrobe Rd	At Deer Creek Bridge	387	530	36.95%	±118.7%	YES
20722025	Rural Arterial	Latrobe Rd	100 ft S of Investment Bl	419	646	54.18%	±115.3%	YES
20732072	Rural Arterial	Latrobe Rd	100 ft N of Investment Bl	712	560	-21.35%	±95.1%	YES
20422041	Rural Arterial	Latrobe Rd	100 ft N of Golden Foothill Pw	1,740	1,597	-8.22%	±68.8%	YES
23572350	Rural Arterial	Lotus Rd	300 ft N of Green Valley Rd	571	812	42.21%	±103.0%	YES
23602314	Rural Arterial	Lotus Rd	300 ft S of Thompson Hill Rd	430	492	14.42%	±114.2%	YES
29872984	Rural Arterial	Lotus Rd	0.25 mi S of SR 49	461	492	6.72%	±111.4%	YES
23622360	Rural Arterial	Luneman Rd	100 ft W of Lotus Rd	182	249	36.81%	±156.0%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
29852968	Rural Arterial	Marshall Rd	200 yds E of SR 49	301	271	-9.97%	±130.0%	YES
29942992	Rural Arterial	Marshall Rd	300 ft E of Garden Valley Rd	371	379	2.16%	±120.5%	YES
30353034	Rural Arterial	Marshall Rd	300 yds S of Lower Main St	49	243	395.92%	±251.2%	NO
19271926	Rural Arterial	Missouri Flat Rd	300 ft N of El Dorado Rd	624	339	-45.67%	±99.8%	YES
30773075	Rural Arterial	Mormon Emigrant Tr	100 ft E of Sly Park Rd	94	171	81.91%	±198.3%	YES
25402539	Rural Arterial	Mosquito Rd	At City Limits	312	519	66.35%	±128.3%	YES
23002287	Rural Arterial	Mother Lode Dr	200 ft W of Sunset Ln	1,102	1,379	25.14%	±81.2%	YES
24122408	Rural Arterial	Mother Lode Dr	400 yds W of Pleasant Valley Rd	738	874	18.43%	±93.9%	YES
24122409	Rural Arterial	Mother Lode Dr	0.43 mi E of Pleasant Valley Rd	323	229	-29.10%	±126.7%	YES
1922668	Rural Arterial	Mt Aukum Rd	0.25 mi N of County Line	157	31	-80.25%	±164.6%	YES
28082805	Rural Arterial	Mt Aukum Rd	300 ft S of Bucks Bar Rd	293	398	35.84%	±131.3%	YES
28472846	Rural Arterial	Mt Aukum Rd	300 ft S of Pleasant Vly Rd	272	342	25.74%	±134.9%	YES
29832980	Rural Arterial	Mt Murphy Rd	50 ft S of Marshall Rd	97	216	122.68%	±196.1%	YES
29881010	Rural Arterial	Mt Murphy Rd	200 yds N of SR 49	27	352	1203.70%	±311.9%	NO
24632455	Rural Arterial	Newtown Rd	200 yds N of Pioneer Hill Rd	222	380	71.17%	±145.2%	YES
25472546	Rural Arterial	Newtown Rd	100 ft E of Broadway	321	453	41.12%	±127.0%	YES
20082007	Rural Arterial	Old Frenchtown Rd	400 yds S of Mother Lode Dr	104	166	59.62%	±191.2%	YES
25002478	Rural Arterial	Omo Ranch Rd	100 ft E of Mt Aukum Rd	76	58	-23.68%	±214.2%	YES
22442233	Rural Arterial	Oxford Rd	50 ft E of Salida Wy	416	596	43.27%	±115.6%	YES
24122405	Rural Arterial	Pleasant Valley Rd	200 yds E of Mother Lode Dr	561	644	14.80%	±103.7%	YES
26782579	Rural Arterial	Pleasant Valley Rd	200 yds E of SR 49 (E)	1,228	1,462	19.06%	±78.0%	YES
27532506	Rural Arterial	Pleasant Valley Rd	300 ft W of Oak Hill Rd	975	901	-7.59%	±84.9%	YES
27632749	Rural Arterial	Pleasant Valley Rd	100 ft E of Cedar Ravine Rd	826	837	1.33%	±90.1%	YES
24612457	Rural Arterial	Pleasant Valley Rd	0.10 mi E of Bucks Bar Rd	447	409	-8.50%	±112.6%	YES
28432839	Rural Arterial	Pleasant Valley Rd	0.40 mi E of Newtown Rd	448	430	-4.02%	±112.5%	YES
19841968	Rural Arterial	Ponderosa Rd	300 ft N of Wild Chaparral Dr	596	471	-20.97%	±101.5%	YES
29042896	Rural Arterial	Pony Express Tr	200 yds E of Carson	236	348	47.46%	±142.0%	YES

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
			Rd					
29182917	Rural Arterial	Pony Express Tr	300 ft E of Gilmore Rd	420	449	6.90%	±115.2%	YES
31043102	Rural Arterial	Pony Express Tr	300 ft W of Forebay Rd	513	385	-24.95%	±107.1%	YES
21632161	Rural Arterial	Salmon Falls Rd	50 ft S of Malcolm-Dixon Rd	616	1,074	74.35%	±100.3%	YES
21502149	Rural Arterial	Salmon Falls Rd	At New York Creek Bridge	224	540	141.07%	±144.7%	YES
29482943	Rural Arterial	Salmon Falls Rd	400 yds S of Pedro Hill Rd	169	347	105.33%	±160.3%	YES
29472946	Rural Arterial	Salmon Falls Rd	200 yds S of Rattlesnake Bar Rd	46	347	654.35%	±257.0%	NO
24961935	Rural Arterial	Sand Ridge Rd	300 ft E of SR 49	50	89	78.00%	±249.4%	YES
22292152	Rural Arterial	Serrano Pkwy	300 ft W of Bass Lake Rd	379	586	54.62%	±119.6%	YES
23182317	Rural Arterial	Shingle Springs Dr	0.20 mi S of US 50	397	135	-65.99%	±117.6%	YES
28462823	Rural Arterial	Sly Park Rd	0.35 mi E of Mt Aukum Rd	286	255	-10.84%	±132.4%	YES
30783077	Rural Arterial	Sly Park Rd	1.62 mi W of Mormon Emigrant Tr	194	261	34.54%	±152.5%	YES
30773073	Rural Arterial	Sly Park Rd	0.35 mi E of Mormon Emigrant Tr	333	410	23.12%	±125.3%	YES
31073094	Rural Arterial	Sly Park Rd	100 ft S of Gold Ridge Tr (N)	314	553	76.11%	±128.0%	YES
31033101	Rural Arterial	Sly Park Rd	100 ft S of Pony Express Tr	710	549	-22.68%	±95.2%	YES
22902288	Rural Arterial	South Shingle Rd	100 ft S of Sunset Ln	531	432	-18.64%	±105.8%	YES
26042603	Rural Arterial	Union Mine Rd	200 yds S of SR 49	142	141	-0.70%	±170.8%	YES
30293028	Rural Arterial	Wentworth Springs Rd	0.7 mi E of Main St	222	131	-40.99%	±145.2%	YES
20382037	Rural Arterial	White Rock Rd	At County Line	1,065	835	-21.60%	±82.2%	YES
20872086	Rural Arterial	White Rock Rd	100 ft W of Latrobe Rd	1,149	948	-17.49%	±80.0%	YES

IX. Validation Summary and Conclusion

Exhibit 16 summarizes the model-wide validation criteria, with the EDC TDM passing all four of the validation criteria for the correlation coefficient, maximum acceptable RMSE and percentage of screen lines and roadway links within the maximum desirable deviation.

Exhibit 16 – Model-wide Validation Criteria Results

Validation Criteria	Result	Pass/Fail
The model-wide correlation coefficient should be greater than 0.88	0.979	Pass
The maximum acceptable RMSE for the entire model should not exceed 35%.	28%	Pass
A minimum of 75% of the screen lines should be within their maximum desirable deviation	100%	Pass
A minimum of 75% of the roadway links should be within their maximum desirable deviation	81%	Pass

Exhibit 17 summarizes the validation criteria by roadway classification, with the EDC TDM meeting validation targets for percent error and percent RMSE for all classifications.

Exhibit 17 – Roadway Classification Validation Criteria Results

Roadway Classification	Percent Error	Target	Result	Percent RMSE	Target	Result
Freeways	3.3%	+/- 7%	Pass	10%	15%	Pass
Major Arterials	-3.5%	+/- 10%	Pass	24%	40%	Pass
Minor Arterials	-4.1%	+/- 15%	Pass	27%	40%	Pass
Rural Arterials	13.8%	+/- 15%	Pass	33%	40%	Pass
Collectors	-8.9%	+/- 25%	Pass	43%	50%	Pass
Ramps	-4.7%	+/- 25%	Pass	38%	50%	Pass
ALL	2.7%	+/- 10%	Pass	28%	35%	Pass

X. Post Validation Data

Exhibit 18 summarizes analysis results for count data received after the most recent complete model validation was completed on November 11, 2013. Given the magnitude of this data set, it would not have a material impact on the overall validation and all major findings remain unchanged. Specific location data is invaluable for improving model results and as additional data becomes available a periodic schedule for its review and analysis should be established. Depending on the quantity of count data and any resulting calibration activities, it may be appropriate to also periodically update the overall model validation results provided in this memorandum.

Exhibit 18 – Roadway Classification Validation Criteria Results

A-B Node Pair	Classification	Roadway	Location	Traffic Count	Model Volume	Percent Error	NCHRP 255 Limit	Within Limit?
25162687	Freeways	US50 - WB GP	US. Highway 50 at Bedford WB	17,165	18,871	9.94%	±30.0%	YES
26862532	Freeways	US50 - EB GP	US. Highway 50 at Bedford EB	17,808	20,936	17.57%	±29.6%	YES
30971020	Freeways	US50 - WB GP	US. Highway 50 at Sly Park WB	3,286	6,896	109.86%	±54.6%	NO
10193091	Freeways	US50 - EB GP	US. Highway 50 at Sly Park EB	3,697	6,907	86.83%	±52.3%	NO
19151924	Rural Arterial	SR49	SR 49 north of China Hill	6,238	7,594	21.74%	±43.3%	YES
26202619	Rural Hwy	SR49	SR 49 west of Missouai Flat Road	12,218	16,350	33.82%	±33.9%	YES
29422927	Rural Arterial	SR49	SR 49 west of Hastings Creek Bridge	3,971	4,413	11.13%	±51.0%	YES
29532954	Rural Arterial	SR49	SR 49 at the Placer Co Line	8,942	8,443	-5.58%	±38.0%	YES